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THE EMORY UNIVERSITY QUARTERLY

VOL. I MARCH 1945 No. 1

FOREWORD

THE appearance of the first number of THE EMORY UNIVERSITY QUARTERLY is a deeply gratifying event. It is too, I think, a significant event in the history of this University in the making. It marks the realization of hopes that have been cherished for many months. It symbolizes the beginning of a new stage in the University's life. It challenges faculty and students, alumni and friends, to the sharing of intellectual interests in a way that has not heretofore been possible. It will, I hope, both express and stimulate the intellectual and cultural life of the University as a whole, both on the campus and out in the wider community wherever alumni and friends of Emory are found.

The Editor of the QUARTERLY, since the task of producing it was laid upon him, has been giving himself unreservedly to preparation for this first number. He has had the hearty and encouraging cooperation of all the members of the Editorial Board and of all who have been approached for contributions to this first or later numbers. There have been, too, many gratifying manifestations of interest and support from faculty members, alumni, and interested friends.

The general nature of the QUARTERLY, as it is planned, and the ends it is expected to serve are clearly stated elsewhere. It is the earnest purpose of all those who have responsibility for fostering it that it shall be a genuinely distinguished publication, adequately representing the best in Emory's life and thought and work, a just cause for pride in every Emory man and woman. Emory faces almost unparalleled opportunity and is challenged by the responsibility which such opportunity inevitably carries with it. The development of a University which significantly contributes to the social and cultural life of a great constituency is no easy task. The QUARTERLY cannot possibly portray every aspect and phase of the life of such an institution. It can and should, however, and I am confident that it will, so well represent and express some of the most fundamental and distinctive activities of the University that it will contribute effectively to the expanding program of service to which the University is committed.

I express then to the Editor and to the members of the Editorial Board, to the contributors to this first number, and to others who have helped to make its appearance possible my hearty thanks. I rejoice with them and with all the friends of the University on the appearance of Volume I, Number 1, of THE EMORY UNIVERSITY QUARTERLY. I invite the interest, the criticism, and the counsel of all those who make up the far-flung Emory University family, to the end that this new venture may be an immediate and a notable success.

Goodrich C. White

GOODRICH C. WHITE
President

The Birth of a Volcano

By JAMES G. LESTER

James G. Lester, B.S. '18, M.S. '23, Ph.D. (University of Colorado) '38, is Professor of Geology. Professor Lester visited Mexico in August 1944 in order to observe Paricutin in eruption.

"OF ALL the natural phenomena which man has had opportunity to look upon, none equals the volcanic eruption in grandeur or in beauty. Whoever has had the good fortune to witness one of the great eruptions will recall that picture with wonder and amazement all his life and retain the deepest impression from it." So states Karl Sapper in his treatise on volcanism.[1]

Paricutin, the baby volcano of the world, is located in a small basin, surrounded by hills and mountains, which lies in the western part of the State of Michoacan, Mexico. The nearest town is Uruapan, famous for its lacquer work and its flowers. Mexico City lies about two hundred air miles to the east and Guadalajara, the third largest city of Mexico, about seventy-five air miles to the west.

The first indication of volcanic activity at Paricutin may be considered to have started on February 1, 1943. For twenty days thereafter the country around the little Tarascan village of Paricuti was shaken by successive earth tremors of varying duration and of varying intensity. Actual eruption, however, began during the afternoon of February 20, 1943.

The first explosion was immediately preceded by a noticeable collapse of the ground near the explosion vent.[2] Great blocks of rocks, fragments of the earth's crust, and great quantities of fine dust and cinders were blown into the air for thousands of feet. The larger and heavier masses dropped near the vent and formed the foundation for the cinder cone. The finer particles were blown many thousands of feet from the vent, and the still finer ash and dust were caught by the high air currents and scattered many miles away from their source.

[1] Sapper, Karl, "Volcanoes, Their Activity and Their Causes," *National Research Council Bulletin*, No. 7 (1931), p. 1.

[2] Bullard, F. M., "Paricutin, Mexico's Newest Volcano," *Southwest Review*, XXIX, 4 (Summer 1944), pp. 504-506.

So violent was the early activity that by morning of the next day a cone had been formed which rose to a height of one hundred and twenty feet, an average growth of about eight feet per hour. By June 1943 the cone had risen to twelve hundred feet, and by August 1944 the height of the cone was more than twenty-five hundred feet.[3]

As more and more material was ejected from the crater and the cone was built higher and higher, slumping of the dry material in the cone occurred. This was due to the attempt of the piled-up cinders and ash to reach a stable angle of repose. The constant vibrations of the ground, resulting from the explosions, aided the slumping and probably contributed materially to the symmetry of the cone.

The explosions within the crater in the early stages of activity came at intervals of two seconds; the intervals were lengthened to twelve seconds by June 1943 and to six minutes by August 1944. Whether or not this can be construed as a dying out of the activity, remains to be seen; it may mean that the pressures causing the volcano are now finding a regular and more uniform release.

Paricutin is an imposing and majestic sight by day, but seen by night it becomes an awe-inspiring experience of grandeur.

The plume of black ash which rises constantly from the crater assumes many varied shapes. At one moment it appears as a column of smoke lazily rising from a large chimney; the next moment it is caught by the prevailing winds and whipped westward like a gigantic veil of mourning. When the explosions become more violent, the plume assumes a knobby or botryoidal aspect, which, because of the propulsive force of the exploding gases of the lava, constantly passes through kaleidoscopic changes. No two explosions ever produce identical patterns. Occasional flashes of fire, resembling lightning, may be seen in the day-time cloud.

Each explosion is accompanied by a deep-throated, angry rumbling which seems to originate directly underneath the observer. The closer the observer is to the cone the more pronounced is this impression.

At night, if observed from a distance of a few miles, the explosions are immediately preceded by a rising curtain of reddish-

[3] Information obtained from Raul Chavez, Indian guide at Paricutin.

orange light, which seems to disintegrate at its maximum height into countless incandescent fragments of all sizes and shapes. The smaller fragments soon wink out and settle down through the darkness. The larger ones, however, carried several thousands of feet above the crater, seem to hover in the air as if undecided whether to obey the law of gravity or not. Some fall back into the crater; others slip off to the side of the upward-pressure column and settle onto the flanks of the cone, where they leave a trail of incandescence as they roll downward. Because of the distance, the noise of the explosion reaches the observer about the time that the curtain of fire disintegrates, and gives the impression of a large skyrocket exploding.

The finer particles of molten rock which are carried to great heights turn to glassy pellets which, when they return to the earth's surface, are cold to the touch. They form a sandy deposit which has the coarseness of ordinary creek sand.

Jets of gas escape through crevices in the sides of the cone, and fumeroles break out through the earth's crust near the base of the cone and also in the outer perimeter of the base. The gases emitted through the fumerolic vents are mostly chlorine and sulfur, but none in lethal concentrations. The fumeroles can be easily and safely examined if they are approached from the windward side.

The cone has been breached by the lava several times. The first breach occurred at a point about one-third the distance down from the rim of the crater. Lava usually breaches the cone at or near the base, because it is easier for it to spread laterally through the pyroclastic material of which the cone is constructed than to rise to a height sufficient to overflow the lip of the crater. As more and more lava permeates the interstices in the cone and solidifies within them, it will effect a consolidation and cementation which may become sufficiently strong to withstand the lateral pressure, and the rising lava will be forced out over the top of the crater. Should this happen, the explosions would become much more severe than they have been so far and the period of the explosions would become more irregular.

Since the first breach of the cone there have been ten separate lava flows. When the lava flow meets the outside air beyond a

breach, its surface quickly congeals to a black glassy rock. The interior of the flow remains in a molten state. When a breach occurs, that part of the cone above the breach collapses, but is readily rebuilt after the hard crust forms on top of the flow, if the crust is strong enough to support the amount of ash necessary to re-form the cone.

The lava is basic in composition (low in percentage of silica and high in percentage of magnesia and iron) and resembles basalt in appearance. As soon as it hardens it assumes a glassy black color, and as a result the flowing lava resembles a moving pile of coal or slate slabs which, as they move, are tumbled helter skelter, accompanied by loud crackings and snappings of the glassy surface as it gives way to tension stresses. As soon as a crack appears in the hardened surface, the molten interior gushes or slowly oozes outward, depending upon the amount of pressure, re-engulfs the shattered fragments of hard crust, and moves slowly forward.

The rate of movement of lava is governed by the viscosity of the lava, the amount of gas contained in it, the contour and relief of the land, the surface over which it flows, etc. The lava at Paricutin moves on an average of about one hundred and fifty feet a day.

The flow is not as impressive in daylight as at night, but the blanket of heat waves which shimmer upward from it is one of its most striking features. At night the rock assumes a dull reddish glow interlaced by bright red veins of the molten material which has filled the fissures in the hard crust.

Because of the great quantity of gas contained in the lava, the rock acquires textures which vary from scoriaceous to vesicular, from smooth-glassy to pebbly-glassy, and from finely granular to finely frothy.

Paricutin's behavior since its beginning has been similar to that of Jorulla, which lies about fifty miles to the southeast. Jorulla started its activity on September 28, 1759, rising from a level cultivated plain. Earth tremors occurred daily for several days immediately preceding the first eruption. Four cones were formed, the highest of which rose to a height of thirteen hundred feet above the plain. Its activity lasted only a short time and has never been resumed. The ejectamenta of these two neighbor volcanoes are very similar.

Izalco, in Salvador, first erupted in 1770 and has been in constant activity since. Its cone rises more than twenty-six hundred feet above the base. The lava is basaltic in nature and similar to that of Paricutin. It has erupted more lava than any other volcano in Central America.

Quizapu, in Chile, began its eruption in 1847 and has been intermittent in its activity ever since. In 1932 a violent eruption blew large quantities of ash and dust so high into the atmosphere that some of it was carried to Buenos Aires nineteen hundred miles away.

Chinyero, on the Island of Teneriffe in the Canary Group, started in 1909, and was the first volcano whose birth was seen and whose early history was recorded by trained scientists.[4]

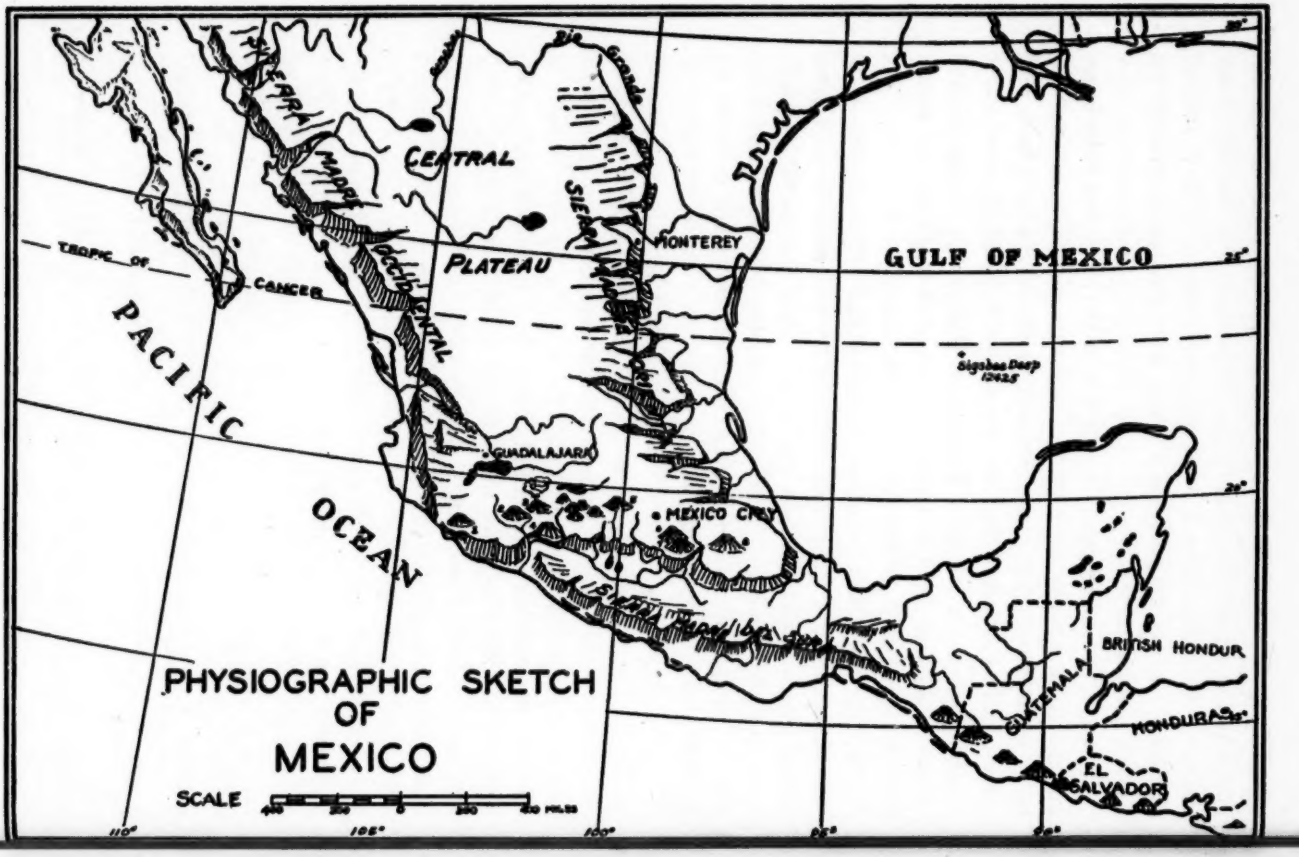
Paricutin, therefore, becomes the newest and brightest gem in the volcanic necklace of the Pacific; a necklace which includes such gems as Katmai, Wrangell, Lassen, Izalco, Cotopaxi (the world's highest volcanic peak), Quizapu, Tamboro, Krakatoa, Mayon, Mauna Loa, and Fujiyama. Not all of these are active; some are dormant or sleeping, but may again become active at some time in the future.

The amount of solid materials ejected by Paricutin is estimated by Dr. Foshag of the U. S. National Museum[5] to be in excess of two billion cubic yards. This includes the lava of the several flows and the blanket of dust and ash. The lava, by its very nature, is more or less restricted in extent, but the ash fall is noticeable within a radius of thirty or more miles of the cone. It has filled valleys and basins; choked streams; seared, bruised, and stripped vegetation; caused all wild-life to migrate to richer feeding grounds and safer breeding grounds; buried cultivated fields, and destroyed the towns of Paricuti and San Juan Parangaracuito. So far as is known, no human life has been destroyed.

How long Paricutin will continue in active eruption is problematical. If it behaves as many of its extinct neighbors appear to have behaved, it will not continue for any great length of time, for it is situated in a veritable graveyard of dead volcanoes of small stature.

[4] Longwell, C. R., Knopf, A., Flint, R. F., *A Textbook of Geology Part I* (New York, McGraw-Hill Co., 1939), p. 293.

[5] Green, J. A., "Paricutin, The Cornfield That Grew a Volcano," *National Geographic Magazine*, LXXXV, 2 (1944), p. 145.


CENTRAL
PLATEAU
SIERRA MADRE OCCIDENTAL
SIERRA MADRE ORIENTAL
MONTEREY
GULF OF MEXICO
TROPIC OF CANCER
PACIFIC OCEAN
GUADALAJARA
MEXICO CITY
BRITISH HONDUR
GUATEMALA
HONDURAS
EL SALVADOR
PHYSIOGRAPHIC SKETCH OF MEXICO
SCALE

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A glance at the physiographic sketch of Mexico will show the two seismic or earthquake zones which lie in Central America as delineated by the numerous volcanic cones. The Mexican zone runs almost east and west across the southern part of Mexico, extending from the Sierra Madre Oriental to the Sierra Madre Occidental and practically forming the southern limit of the high Central Plateau. The Central American zone runs along the Pacific border of the Central American countries and extends northward into the United States, Canada, and Alaska, and southward into the Andean System.

Going from west to east the following volcanoes (numbered) are encountered in the Mexican zone: 1. Colima (12,664 ft.), 2. Tancitaro (12,630 ft.), 3. Paricutin (2500 ft.), 4. Jorulla (4330 ft.), 5. Toluca (15,055 ft.), 6. Ixtaccihuatl (16,200 ft.), 7. Popocatepetl (17,520 ft.), 8. Orizaba (18,240 ft.). The remarkable alignment of these, the larger volcanoes of Mexico, immediately suggests that the eruptions have occurred along a fissure or a belt of fissures in the earth's crust. It is, perhaps, significant that the earthquake belts of Mexico and Central America coincide with the volcanic belts.

The two geologic periods in which major volcanic activity in Mexico occurred have been Late Cretaceous and Late Tertiary.

Because the seismic belt extends from the Gulf of Mexico to the Pacific Ocean; and because the lithology differs north and south of the belt; and because the age of the mountains south of the belt differs from the age of the Sierra Madres; and because the structural relations are interrupted by the belt, Bullard believes that the belt marks the southern extremity of the North American Continent.[6]

Whether Paricutin is connected with the same magmatic reservoir as is Jorulla and Tancitaro is purely speculative. However, the similarity of its performance at its beginning to that of Jorulla, and the similarity of the ejected materials, both liquid and solid, to those ejected by Jorulla, would seem to indicate that the two volcanoes received their material from the same source. The pressure which caused Jorulla to erupt was relieved by its eruption and, if the two are connected, was not built up sufficiently to cause a recurrence of

[6] Bullard, *op. cit.*

activity until Paricutin began. It is not at all surprising that Paricutin appeared in the earthquake-volcano zone of Mexico, and neither is it surprising that it occurred near the western end of the zone and fairly close to Jorulla, where the last volcanic activity of a similar nature occurred.

Why volcanoes erupt and why some are more violent than others, why they occur in certain places, why some eject one type of material and others eject a different type, and where all the heat comes from, are questions which cannot be conclusively answered. Some of these questions, however, can be answered with a certain degree of accuracy if field indications are properly interpreted.

Volcanoes erupt when pressure causes material to move outward from the earth's interior with such force that it breaks through the upper crust onto the surface. Whether the material is molten when it begins its outward journey, or whether it becomes molten somewhere along the course of its journey is not known. It certainly reaches the surface in a molten condition, and it is extremely likely that its fluidity is assumed early in its passage to the surface. Other factors which influence its movement through the earth's outer layer are: the porosity of the surrounding rock, whether due to jointing, rock texture, or numerous fractures in the rocks; the amount of the water in the rocks; the solubility and fusibility of the rock which encloses the magma; the amount of latent gas in the magma and the amount of gas generated by the reactions between the rocks and the magma; pressure generated within the magma; pressures imposed upon the magma by forces and conditions not directly associated with the magma itself, such as collapse of the overlying crust, rotation of the earth, and isostatic adjustments.

Whether a volcano is of the explosive type depends upon the rapidity with which the magma approaches the surface of the earth and the amount of pressure generated by the magma or imposed upon it while ascending. Some volcanoes and many lava flows of the fissure type never exhibit an explosive phase, if field indications can be relied upon. They begin quietly and deliberately, erupt without the fanfare of explosions, and die quietly and peacefully.

Volcanoes are usually found in zones of weakness in the earth's crust. These zones are commonly associated with the mountain

masses on the continents or with the deep troughs in the ocean's floor.

The mere fact that the Appalachian Mountains are where they are, and have been elevated above the surrounding region, indicates that at least one zone of weakness was in existence in the eastern part of North America at the close of Paleozoic time.

Differences in lava types occur because the sources of the lavas are not the same, or because the conditions under which the lavas form are not the same, or, if the sources are similar, then because great modifications take place within the magmas, which produce the lavas, as they rise to the surface and come in contact with all types of rocks. The difference between lava types of neighboring volcanoes has been taken by many students of petrology to be indicative of the heterogeneity of the rocks beneath the earth's surface, or the existence of restricted magmatic chambers, or both.

The source of the heat which is so prominently in evidence in all volcanic activity, and which is brought from within the earth by the lavas and gases, is not known. Several hypotheses have been proposed in attempts to explain the earth's heat, but none of them can fully satisfy all conditions encountered.

One of the hypotheses is based, in part at least, upon the Nebular Hypothesis of the origin of the earth, and postulates a hot earth which has been slowly cooling from the outside toward the core and has not yet become fully cooled. Because of the slow cooling rate and the insulating properties of the outer ten miles of the crust, the interior is supposed to be in a molten condition. This theory assumes a homogeneity of the rocks at depth, a universal layer of molten rock material underneath the crust, and a uniformity of lavas in all volcanoes. Jagger states, "I now conceive of vulcanism as a process that is at work in and under the crust of the earth everywhere, a thermal remnant of a primitive thermal and gas-evolving process which began when the earth separated from the sun."[7] He believes variations in the composition of magmas to be the result of crustal adulteration or degeneracy of the primitive basic magma. However, only in restricted areas of the earth can homogeneous lavas be found.

[7] Jagger, T. A., "The Mechanism of Volcanoes," *National Research Council Bulletin*, No. 77 (1931), p. 52.

A second hypothesis attributes the heat to friction between slipping rock masses at the time of mountain building. Although certain evidences have been seen which seem to support the hypothesis, they have been of minor significance, and have been more closely associated with the plutonic rocks (those rocks derived from magma which cooled beneath the surface of the earth) than with the volcanic rocks.

A third hypothesis considers the geothermal gradient (the change in earth temperature per one hundred feet of depth) to be fairly constant in its values far beyond the depths which are definitely known from direct observation. If this assumption is a true one, it would mean that below a depth of sixty miles the temperature of the earth would be well above the fusion point of the known rocks, and all rock material would be in a molten state unless the pressures at that depth would prevent fusion.

Another hypothesis attributes all the heat to the disintegration of radioactive substances such as uranium, thorium, actinium, radium, and others. This hypothesis fits nicely with the idea of restricted chambers of magma and with the heterogeneity of volcanic and plutonic rocks. Localization of the radioactive elements would perhaps contribute, if not all, at least a part of the heat necessary to cause fusion. One gram of radium will emit in its full decay period (20,000 years) a total of 3,700,000,000 calories. This is the equivalent of about one thousand pounds of good bituminous coal.[8]

The severe pressures, both static and dynamic, which exist within the earth may cause certain minerals or mineral combinations that are stable under normal surface conditions to become unstable at depth. Reactions which have been used to establish some of our chemical and physical laws may be entirely reversed at the pressures and temperatures within the earth. Trigger reactions, set off by processes now unknown to man, may account for fusion of the rock material and the formation of the great quantities of gas contained in lava.

Perhaps volcanic heat is a combination of two or more of the

[8] Hevesy, George and Paneth, Fritz, *A Manual of Radioactivity* (Oxford University Press, 1926), p. 198.

factors enumerated above. Because man knows so little about the interior of the earth, every new volcano becomes a possible source of information leading to the solution of the problem. No wonder that Paricutin has attracted the attention of scientists all over the world!

Whatever the source of the earth's heat may be, there is no denying its existence and the manifestations of it at Paricutin and other active volcanoes of the world. Not only is it being manifested today, but so far as field evidence is concerned, it has been manifested from time to time throughout geologic history.

A Note on the Frontispiece

The fine contemporary portrait of John Wesley in his old age, reproduced as the frontispiece to this issue of the QUARTERLY, was presented to Emory College by Mr. George A. Plimpton, a member of the firm of Ginn and Company, publishers. The canvas is unsigned, and the best attribution possible is that the portrait is either by or after Henry Edridge (1769-1821). Edridge is known as a painter of miniatures and watercolors. He was only twenty-two years of age at the time of Wesley's death, but the frontispiece of *The Life of the Rev. John Wesley, A.M.*, by Thomas Coke and Henry Moore, London, 1792, identical in all respects with the Emory portrait, was "Engraved by Ridley, from an Original Drawing by Edridge." Mr. Lewis Palmer Skidmore, Director of Art of the High Museum of Art in Atlanta, who has recently skillfully repaired the painting, believes that it is not impossible that Edridge in his maturity painted this portrait in oils from an early miniature, probably in black lead and Indian ink, which is said to have been his especial medium. Edridge was elected an Associate of the Royal Academy in 1820. The portrait is vigorous in execution, subdued but glowing in its coloring, and altogether is one of the best of the portraits of the founder of Methodism. It hangs in the Wesley Room of the Candler School of Theology with Emory's extensive and important collection of Wesleyana.

The Palatine

[IN THE "DARK AGES"]

By WILLA CATHER

Willa Cather, one of America's most distinguished writers of novels and short stories, is less well-known for her charming but slender volume of poetry. "The Palatine" is reprinted by the express permission of the author from APRIL TWILIGHTS *(1923).*

"Have you been with the King to Rome,
Brother, big brother?"
"I've been there and I've come home.
Back to your play, little brother."

"Oh, how high is Caesar's house,
Brother, big brother?"
"Goats about the doorways browse;
Night hawks nest in the burnt roof-tree,
Home of the wild bird and home of the bee.
A thousand chambers of marble lie
Wide to the sun and the wind and the sky.
Poppies we find amongst our wheat
Grow on Caesar's banquet seat.
Cattle crop and neatherds drowse
On the floors of Caesar's house."

"But what has become of Caesar's gold,
Brother, big brother?"
"The times are bad and the world is old—
Who knows the where of the Caesars' gold?
Night comes black on the Caesars' hill;
The wells are deep and the tales are ill.
Fire-flies gleam in the damp and mould,—
All that is left of the Caesars' gold.
Back to your play, little brother."

"What has become of the Caesars' men,
Brother, big brother?"
"Dogs in the kennel and wolf in the den
Howl for the fate of the Caesars' men.
Slain in Asia, slain in Gaul,
By Dacian border and Persian wall;
Rhineland orchard and Danube fen
Fatten their roots on Caesar's men."

"Why is the world so sad and wide,
Brother, big brother?"
"Saxon boys by their fields that bide
Need not know if the world is wide.

Climb no mountain but Shire-end Hill,
Cross no water but goes to mill;
Ox in the stable and cow in the byre,
Smell of the wood smoke and sleep by the fire;
Sun-up in seed-time—a likely lad
Hurts not his head that the world is sad.
Back to your play, little brother."

De Colle Palatino Illis Atris Saeculis

Plurima cum venia Gulialmae Cather necnon Horatii Alcaeique pace

EDUARDUS K. TURNER

Edward Kimbrough Turner, A.B. (Southern University) '90, M.A. (Vanderbilt) '95, Ph.D. (Halle-Wittenberg) '02, is Professor Emeritus of Latin, having retired from active teaching in 1942. He has long been famous for his skill in turning English poetry into polished Latin versions.

"Eratne, maior frater, iter tibi
Cum rege Romam? Dic mihi te precor."
"Certe; domum autem nunc reveni.
Visne operam dare ludo amato?"

"At, care frater, regia Caesaris
Eratne vere maxima et optima?"
"Vere fuit, sed nunc capellae
Gramina mollia ruminantur

Sub limen illud; noctua flebilis
Illis adustis in trabibus struit
Nidum sibi foedum ferarum in
Sede aviumque apiumque sede.

Se mille pandunt marmoreae domus
Patentque coelo, soli, aquilonibus.
Invenimus crescens papaver
Somniferum aedibus in vetustis

Interque nostrum debile triticum.
Herba pecus nunc pascitur uberi
Oviliones dormiuntque
Caesaris aedibus in nefastis."

"Quo fabulosae divitiae, obsecro,
Evanuerunt Caesaris atrii,
Maior, mihi?" Mundus senescit
Nostraque tempora maesta fiunt.

Numquis potest nunc dicere quem in locum
Aurum nefastum se abdiderit tibi?
Funesta nox descendit atra
Caesareum in tumulum vestustum.

Nobis profundi sunt putei putres
Et quisque narrat tristia plurima.
In humidis illis salictis
Ignea musca solet micare.

Nam tristiores reliquiae manent
Solae ex superbis divitiis, minor
Frater, manent ex Caesarum auro.
Visne operam dare ludo amato?"

"Quidnam peritis militibus rogo
Factum sit illis Caesaris unici?"
"Canes tenebrosis in antris
In specibusque lupi latentes

Incontinenter flent ululantque adhuc
Fortissimis pro militibus tibi
In Gallia occisis, peremptis
Inque Asia, prope limitemque

Dacum atque propter Persica moenia.
Nam pinguior fit Danuvii palus
Pomarium Rhenanum et udum
Sanguine Caesareo nefasto."

"Cur terra tam tristis videatur et
Tam lata, nobis expedias velim."
"Haudquaquam oportet vos Britannos
Qui maneatis adhuc virentes

Vestris in agris quaerere quo modo
Haec terra tam tristis videatur et
Tam lata; montes neu altiores
Scandere eo tumulo propinquo;

Transire aquas nullas nisi quae molam
Versent. Boves sunt in stabulis suis
Et vacca. Dulces ligni odores
Fumiferi atque sopor prope ignem.

Nunc est serendum; sol oriens adest.
Probum juvencum se angere dedecet
Quod terra maesta est, parve frater.
Visne operam dare ludo amato?"

Stem-Winding Government

By WILLIAM B. STUBBS

William B. Stubbs, A.B. '19, M.A. (Oxon) '31, is Professor of Political Science. As a Rhodes scholar, enrolled in Christ Church, Oxford, he read in the Honour School of Jurisprudence.

AMERICAN watches are stem-winders. Every twenty-four hours millions of individual Americans turn a little knob on the short stem of a watch. In this manner millions of watches receive the power which enables them to be effective timepieces. Every day many watch owners use the knob on the end of the stem for a second purpose, setting the watch, to correct any errors in the movement of the watch during the preceding twenty-four hours.

Stem-winding watches were not made until some years after Peter Henlein of Nuremberg developed the mainspring as the driving force of a timepiece, about 1500. After this development it was many years before the watch became an accurate timekeeper. In the history of the watch there was a period during which watches were more ornamental than useful. Made of costly metals, decorated with rare jewels, shaped in peculiar and artistic forms, they were sold for large sums. The average citizen could not have bought one of these watches if he had wanted it. Such a watch would not have been of much service to him if he could have afforded it. Gradually, as a result of the combined efforts of many individuals in different countries, through several generations, the watch evolved from a mere toy or badge of wealth or nobility to a most effective tool for the average man. The development of American methods of manufacture and distribution had much to do with the progress of the watch from its early use as a toy and ornament for the few to its current importance as the reliable servant of millions.[1]

Modern American watches have five essential characteristics. First, the power which runs the watches comes from the people whom the watches serve; the watches are *stem-winders*. Second, the

[1] See Willis I. Milham, *Time & Timekeepers* (New York: The Macmillan Co., 1941) or Harry C. Brearley, *Time Telling through the Ages* (New York: Doubleday, Page & Co., 1919).

watch has a *driving mechanism,* the principal part of which is the mainspring. Third, the watch has a *transmitting mechanism,* which "consists of a train of wheels and pinions for transmitting the power from the driving to the controlling mechanism."[2] Fourth, in the watch is a regulatory device or a *controlling mechanism,* frequently called the escapement, which insures the steady, regular, forward movement of the hands. Fifth, the watch has an *indicating mechanism,* including the hands and the face. The purpose of the watch is to serve the user through what he sees as the result of its operation. If he has good reason to believe that the hands are in the wrong position, he can change them. In other words, the American watch is not only stem-winding, it is also stem-setting.

In many particulars American government resembles the American watch. It is an axiom of American government that the power of the government is derived from the people whom it serves; it is stem-winding. It is a recognized essential of democratic government that the people be free to disagree with and to criticize the results of the operation of government. They may interfere and set it right. American government, like the watch, is stem-setting as well as stem-winding. The comparison need not end here. Federal and state governments in the United States of America are separated into legislative, executive, and judicial branches. In some particulars, these three branches resemble the inside mechanism of the watch, but it would not be advisable to carry the analogy too far. The legislative branch of government in America, like the driving mechanism of the American watch, is the agency to which the people give power which is used to keep the other parts of the machinery going. The executive branch may be likened to the transmitting mechanism of the watch. The judicial division of our government insures the equal, regular, and steady application of power, and in that respect resembles the controlling mechanism of the watch.

In the make-up of a stem-winding watch there must be a ratchet wheel, "a wheel with triangular teeth fixed on to an arbor to prevent the latter from turning backward."[3] It is clear that the ratchet wheel does not supply the energy for the forward motion of the

[2] Milham, *op. cit.,* p. 231.

[3] Brearley, *op. cit.,* p. 284.

watch mechanism. It prevents backward motion. Someone has wisely said that "law is the ratchet wheel of progress." It is well for Americans to keep this in mind. Law is a part of the machinery of government, not a motivating force but a prevention against retrogression. Law should not be depended upon to force the bulk of the citizens to adopt higher moral standards. As a result of higher moral standards developed by other means in the bulk of the citizens, the state should enact laws which would prevent the minority from breaking down those high standards. In the year 621 B. C., King Josiah made an effort to bring about a religious reform in Judah through legislation. He failed. In the twentieth century, the United States of America attempted to bring about abstinence from alcoholic beverages through constitutional amendment. That effort failed. The ratchet wheel is closely related to the driving force in the watch, but that wheel would never be expected to stimulate the hand of the watch-winder; it is present to make effective in the whole mechanism of the watch the energy and the drive imparted to the mainspring by the hand of the winder. So the individual citizens must be the source of the driving power for progress in government; the internal mechanism of government can not be its own driving power.

In order to set their government right when indicated results are unsatisfactory, citizens in a democracy must have the right to criticize freely any act or any officer of the government, and the right to change officers at least periodically. The necessity of free criticism means that free speech, a free press, and a free radio are essential parts of our governmental machinery. If the federal government should ever insist upon the complete control of the indicating mechanism, through peace-time censorship or otherwise, American citizens should get a new government as quickly as they would get new watches if the stem-setting devices failed to work.

It is the stem-winding and the stem-setting characteristics of American government with which the average citizen is and should be most concerned. He leaves the overhauling and the replacement of parts on the inside of the watch to a skilled craftsman, a specialist. So with his government, the American insists on being the source of power for his government and upon the right to criticize and

change officers, but he is willing to delegate to others the details of overhauling the machinery of government.

Americans were potential stem-winders of government before the central government of the United States of America was organized so as to make its stem-winding possible. Under the Articles of Confederation the central government acted on individual citizens only indirectly, through state governments; and, in turn, individual citizens did not impart power to the central government. Such power as the central government had, came from the states. As America grew and developed, the governmental mechanism under the Articles of Confederation failed to give satisfactory results. The citizens of the several states were dissatisfied with the impotence of the central government. Skilled political craftsmen were called to meet at Philadelphia in 1787 to overhaul it. The old parts would not do. A new model was needed; so our fathers at Philadelphia designed a government outlined in the Constitution of 1789, a stem-winding government, a stem-setting government.

It is important to note that the craftsmen at Philadelphia consciously and intentionally designed a new type of central government, and that the adoption of this government was not accomplished through the machinery of the old central government. "The binding force of the constitution rests, not on its being the legitimate successor to the articles of confederation—which it is not—but on its adoption by the people of the states in the exercise of their primary and inherent right . . . to ordain and establish their own institutions."[4]

The success of our federal government under the Constitution of 1789 has been due in large measure to the fact that the men who planned it, and the people who approved and supported it had been prepared for it by a peculiar political background. One need only mention Magna Carta (1215), the Petition of Right (1628), the Bill of Rights (1689), and the Declaration of Independence (1776). In the development of Anglo-American political institutions, what had once been the toy or the sole concern of men of wealth or of noble birth became, after generations of slow progress, the tool of the average man.

[4] *Corpus Juris Secondum*, Vol. 16, p. 24 (Par. 4).

It is recognized that Americans owe a great debt to Europeans for the early beginnings of their political institutions as well as for the early development of watches. However, it should be remembered that American improvements in political institutions have brought government closer to the average or common man. An outstanding American improvement in government is the development of the constitutional convention, by means of which representatives of the people, selected for that particular purpose, are called upon to draft a form of government. The draft is then submitted to the people for their acceptance or rejection. Through such constitutional conventions, Americans have secured stem-winding and stem-setting government.

Some writers seem to forget that the constituent power of the people is actually a part of the government just as truly as the stem-winding device is a part of the watch. Perhaps they need to be reminded of constitutional provisions like the following:

> All government, of right, originates with the people, is founded upon their will only, and is instituted solely for the good of the whole. Public officers are the trustees and servants of the people, and at all times amenable to them.[5]
>
> The people of this State have the inherent, sole and exclusive right of regulating their internal government, and the police thereof, and of altering and abolishing their Constitution whenever it may be necessary to their safety and happiness.[6]

The fact should not be overlooked that the American Revolution, and subsequent events, established some differences between government in the United States of America and government in Great Britain. The following quotation from Judge Lumpkin is worthy of consideration:

> In Great Britain, the theory of Government is, that the *sovereignty* of the nation resides in the Parliament—consisting of King, Lords and Commons. By gradual and immemorial usurpations, it has been completely wrested from the *people*. Hence it is, that English writers speak familiarly of the *omnipotence* of the Parliament. But the order of things here is

[5] *Constitution of the State of Georgia,* Art. I, Sec. 1, Par. 1.

[6] *Ibid.,* Art. I, Sec. 5, Par. 1.

exactly the reverse of this: the *supreme power* resides in the *people*. There, the government is master of the people; here, the people are masters of the government.[7]

It should never be forgotten that the successful development of the federal government of the United States of America depended not only on the careful and far-seeing design made by competent political craftsmen at Philadelphia, but also upon the readiness of a sufficient number of American citizens to adopt the new stem-winding model. If a sufficient number of potential winders had not been able, ready, and willing to furnish the motive power, the new model of government would have been worthless.

Today, Americans are very much concerned about the possibility of world peace under a world government. American history should suggest to us that any machinery of world government will be short-lived unless it is both stem-winding and stem-setting. Just as American citizens were potential users of stem-winding government before this type of government was developed in America, so we have today potential world citizens of a stem-winding world government. However, we should remember that both the political craftsmen and the individual Americans went through the period of government under the Articles of Confederation before they achieved the Constitution of 1789.

There are grounds for strong suspicion that neither the allied political craftsmen nor the citizens of the world, including Americans, are ready to plan and to furnish the motivating power for a stem-winding world government. There are in the world many nations with millions of different individuals of varying races, creeds, colors, and political backgrounds. It would be folly to say that only those who have in their political background Magna Carta and the Declaration of Independence would ever be able to use stem-winding government. However, the allied political craftsmen do not seem convinced that a sufficient number of world citizens have the necessary background for participation in the type of government Americans favor. The difficulties encountered in setting up governments for liberated countries like Italy, Belgium, and Greece suggest that some of our allied leaders not only question the political

[7] *Beall v. Beall*, 8 Ga. Rep., p. 215.

competency of the people in those countries, but that they are not willing to permit freedom of speech, freedom of press, and freedom of radio on a world basis. Suffice it to say that allied leaders do not give promise of planning for the world a change in the model of government like the change which the Philadelphia Convention proposed for the thirteen states in 1787, despite the fact that such a change, to a direct relationship between world government and the individual, in limited spheres, seems to be necessary.

It is not the absence of proper planning on the part of allied leaders that constitutes the most serious obstacle to world peace and order under a new world government. The greatest problem is the absence of the ability, the readiness, and the willingness of the potential stem-winders. Here in the United States we have many who are not yet willing to allow equality of political opportunity to all fellow-Americans. Millions more are not willing to permit citizens of unknown lands any voice in directing the very least policy involving Americans. We, and other peoples, are under the spell of nationalism and are handicapped by an outgrown concept of sovereignty. If we remember that the American people, in adjusting themselves to that modification of the concept of sovereignty which was necessary to establish a lasting federalism, had so much difficulty that they fought a Civil War, perhaps we can begin to appreciate the magnitude of the task before the world.

To change the current notion of sovereignty in the minds of a sufficient number of people to make world government possible, is a long, hard task; but a brief glance at the history of the development of political institutions may encourage us. Gradually, through the ages, there has been an increase in the number of people bound together by a common loyalty and responsible to a common governmental authority. From family under Abraham, to tribe under Gideon, to state under David and Solomon, the Hebrew people made painful progression. Despite many difficulties, after centuries of effort, peoples of Europe moved from small political units to the larger national states. The powerful federal union of the United States of America developed from thirteen separate states, but that growth has taken nearly two centuries. If our ideal is the bringing together of all people in the world under one governmental author-

ity, it helps to keep in mind the progress that has already been made in that direction, and also the possibility of continued growth in the future. Consideration of the past will also enable us to be patient yet persevering if our ideal should not be reached in a year or two. It takes time and effort to change millions of individuals. Federal Union, Incorporated, "a non-profit, educational, membership organization open to all Americans who believe in educating the public in applying the principles of the U. S. Constitution between nations to promote individual freedom, prosperity and peace," is one organization now at work on the great task. Many Americans and peoples of other lands are interested in such organizations; but there must be many more.

It is fundamentally sound to approach the building of world order by educating individuals as to the need for a revision of current ideas of national sovereignty. Change must be primarily in individuals; secondarily in governments. Modern watches are marvelous instruments, but it would be a disappointing experience to make them if the people were not able, ready, willing, and anxious to give them power and dependability through stem-winding and stem-setting.

Penicillin

By PAUL B. BEESON

Paul B. Beeson, M.D. (McGill) '33, is Associate Professor of Medicine. His investigative work has been chiefly in the field of infectious diseases.

IN 1929 Professor Alexander Fleming, bacteriologist to the St. Mary's Hospital, London, reported some observations on a substance which he called penicillin. Fleming's interest had been aroused by a chance occurrence, which, doubtless, many other bacteriologists had seen and ignored. He noticed that a mold (Penicillium) which was growing on one of his cultures appeared to be inhibiting the growth of bacteria in its vicinity. He soon found that culture broth in which the mold had grown was strongly antagonistic to several common bacteria. This antagonism appeared to be a property of some substance (penicillin) liberated by the mold. His first practical use of the discovery was to use broth containing penicillin as an ingredient in culture media, in order to separate certain bacteria from mixtures, since penicillin does not restrict growth of all kinds of bacteria. He also considered the possibility of using penicillin in the treatment of infectious disease, and even used dressings soaked in the culture broth in treating some skin infections, but he concluded that the therapeutic value of penicillin was limited because of the difficulties in producing it.

Little further progress was made for almost a decade, when a group of scientists at Oxford decided to re-investigate the possibilities of penicillin in treatment. These workers devised improved methods of preparing the agent and then tested its effect on infections of animals. The results were very encouraging. At that point came the outbreak of the present war, a circumstance which added importance to the problem, in view of the fact that the bacteria which are affected by penicillin are those principally responsible for war-wound infection. Penicillin was therefore cautiously tried in the treatment of a few human patients. The results were good, and, equally important, there was no sign of injury to the persons who received the treatment.

The need was now urgent for an attempt to produce penicillin in quantity. Conditions in England were not favorable for such an endeavor; so the problem was brought to America, to some of our manufacturers of biological products. These institutions, rather than the comparatively small research laboratories of our universities, were the logical ones for the task, since they possessed proper equipment and experience in large-scale biological work. The assignment was a difficult one. Because only a small amount of penicillin is produced in each culture, enormous volumes of broth had to be handled. This will be appreciated from the fact that all of the penicillin which can be extracted from 100 quarts of culture may be required for the treatment of a single patient. To supply the needs of nations, therefore, bacteriological procedures had to be carried out on a huge scale. The mold which gives penicillin is fastidious, demanding delicate control of such factors as temperature and acidity of the broth. At times, for no apparent reason, it may cease to liberate penicillin. Penicillin itself is unstable, and is easily destroyed during the process of extraction and purification. To medical men the achievement of our commercial laboratories in overcoming these and other difficulties is comparable to the feats of our shipbuilders or our aircraft manufacturers. By the end of 1942 penicillin was being produced, in highly purified form, in sufficient quantity for critical clinical testing.

In order that knowledge of the clinical uses and limitations of this new agent should be obtained as quickly as possible, the first supplies of penicillin available for civilian use were allocated, by the National Research Council, to institutions where there were facilities for careful clinical and laboratory studies. The Department of Medicine of Emory University was one of the institutions chosen, and in the past two years at Grady Hospital several hundred patients, suffering from a wide variety of infectious diseases, have been treated with penicillin. The results obtained have been reported to the National Research Council, to be incorporated in reports which that organization is now releasing to the medical profession.

By the spring of 1944 the production of penicillin had become sufficient to permit a limited distribution for civilian use through-

out the nation. A system was devised under which a monthly allotment of penicillin is sold to each general hospital. The hospital is expected to make the best use of the quantity which it receives, and to supply smaller institutions in its own locality. The amount available is not yet sufficient for all needs, and physicians are attempting to conserve the present supply by using penicillin only when the indication is clear, and to use it in doses as low as compatible with effectiveness.

Much work has been done to establish the chemical structure of penicillin. Possibly that has already been achieved, but is being kept secret for military reasons. Some information on the subject has been made public, which indicates that penicillin is not a very complex chemical substance. Once the exact structure is determined, chemical synthesis may be possible. In addition this knowledge would perhaps enable chemists to develop improved penicillin-like substances, as was done with sulfanilamide and its derivatives.

Penicillin is supplied for clinical use in the form of a dry powder, sealed in a glass vial. The powder is not a pure substance; consequently the amount of active material has to be expressed in terms of "units," a unit being the quantity which will prevent the growth of a special strain of staphylococcus under certain standard conditions. Treatment of a single patient may require from 100,000 to 4,000,000 units, depending on the nature of the infection.

Penicillin has no effect when taken by mouth, because it is destroyed by the acid of the stomach. Consequently it must be given by injection, either into a muscle or into a vein. The intramuscular route is employed more frequently. To prepare penicillin for injection, the powder is dissolved in sterile water or physiological salt solution.

One unfortunate property of this agent is the fact that it is rapidly excreted from the body by the kidneys. Much of the precious substance is eliminated within a few minutes after it has been injected, and only a trace can be detected in the blood three hours after an injection. Doses must therefore be repeated at frequent intervals, in order to maintain a satisfactory level in the body. Injections are usually given every two or three hours, day and night. In some instances the treatment has to be continued for two or three weeks.

Penicillin also has advantageous properties, the most important being its harmlessness to the patient. The sulfonamide drugs, in comparison, frequently cause unpleasant symptoms; occasionally they induce serious reactions. Another advantage of penicillin over the sulfonamides is the fact that it retains its anti-bacterial activity even in the presence of pus, being effective in an abscess cavity, a situation in which the sulfonamides are useless.

Although the exact mechanism by which penicillin exerts its inhibiting action on bacteria is not yet known, the general nature of this action has been determined. It does not act as a poison which kills the bacteria on contact, but in the presence of penicillin bacteria do not grow freely. Like human beings, bacteria have certain nutritional requirements, such as proteins, minerals, and vitamins. Penicillin probably interferes with the assimilation of some of these, slowing or stopping bacterial growth. The curative action of penicillin in infectious disease is probably due to retarding of the rate of bacterial growth, which provides opportunity for the natural defenses of the body, in particular the white blood corpuscles, to destroy the bacteria.

Penicillin is effective only in certain bacterial infections. There still remain many infections in which it is of no value, such as tuberculosis, typhoid fever, typhus fever, undulant fever, influenza, yellow fever, and malaria. The types of infection in which benefit can be expected are now fairly clearly defined. The following paragraphs contain some general remarks about the diseases in which the greatest use has been found.

STREPTOCOCCAL INFECTIONS. Examples are tonsillitis, mastoiditis, erysipelas, and puerperal infection. Penicillin treatment is usually successful in these diseases, although moderately large doses may be required. One special form of streptococcal infection, bacterial endocarditis, deserves particular mention. In this disease there is a rather indolent infection located on a valve of the heart. Until recently the condition has almost invariably led to death of the patient. Experience with penicillin treatment indicates that now the majority of these patients can be saved. Chart I presents a graphic account of the hospital course of a recent case in Grady Hospital. It will be

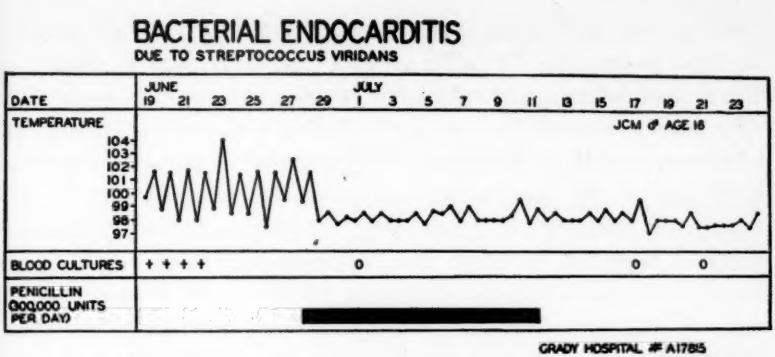

CHART I. Record of the daily temperature variation in a 16-year-old youth, suffering from bacterial endocarditis. During the period indicated by the heavy black line he was given 300,000 units of penicillin per day. The "+" marks in the line opposite "Blood Culture" indicate that bacteria were cultured from his blood at the times shown. The "O" marks on the same line indicate failure to culture bacteria from his blood.

observed that the patient's fever subsided almost immediately after penicillin treatment was begun and did not rise again when the treatment was discontinued. The patient has been examined periodically since then, and has shown no sign of recurrence of the infection. The dose of penicillin necessary to effect such a result is large—4,000,000 units or more—but this expenditure is amply rewarded by the cure of an otherwise fatal condition.

GAS GANGRENE. This severe infection, a particular hazard in war wounds, is favorably influenced by penicillin. The results obtained here, in a few cases, have been very good; and reports from military surgeons, who have had far larger experience, indicate that penicillin is lowering the fatality rate from gas gangrene to a considerable extent.

STAPHYLOCOCCAL INFECTIONS. Many severe infections of the bones, kidneys, and lungs are caused by staphylococci. Penicillin is very effective in some of these infections, but in others it has been disappointing. When the site of infection is a soft tissue, such as skin, lung, or kidney, results are generally good. In bone infection, on the other hand, penicillin rarely effects a cure, although it is of some value as an adjunct to surgical treatment.

PNEUMOCOCCAL INFECTIONS. The pneumococcus is the chief cause of lobar pneumonia. Penicillin seems to act even more favorably in this type of infection than the sulfonamide drugs, so that the fatality rate from pneumonia is now far less than it was ten years ago. In addition penicillin is effective in the treatment of one of the serious complications of pneumonia—empyema—a collection of pus between the lung and the chest wall. Empyema formerly required surgical drainage, in which there is some operative risk, and always prolonged disability. At Grady Hospital, in all but 3 of 20 cases of empyema, surgical drainage has been avoided by penicillin treatment.

GONOCOCCAL INFECTIONS. Gonorrhea responds to penicillin treatment more dramatically than any other common infection. Usually a patient can be cured with a total dose of only 100,000 units, given during a period of 12 hours.

SYPHILIS. The place of penicillin in treatment of syphilis cannot yet be defined. Syphilis has many forms. In some of them penicillin appears to be superior to any other treatment, while in others it does not give the best results. Several years will be required before exact statements can be made.

Progress in the knowledge of penicillin is very rapid. Nearly every current medical journal contains articles on the subject—clinical application, production, methods of assay, or mode of action. Important advances will be made within the next few years, not only in regard to penicillin, but also in studies of related substances, produced by other molds. It is conceivable that penicillin will be replaced by some other agent. Be that as it may, one can safely say now that Fleming's discovery and the chain of progress which followed it has written one of the great chapters in all medical history.

Julien Green

A FRENCH NOVELIST WITH A SOUTHERN BACKGROUND

By IGNATIUS W. BROCK

Ignatius W. Brock, Ph.B. '27, M.A. '30, Ph.D. (Wisconsin) '38, is Associate Professor of Romance Languages. Professor Brock promises to write a critical appraisal of Julien Green's books for a later number of the QUARTERLY.

IT IS well to state at the beginning that although his parents were American, and although he himself is technically an American citizen—an arrangement which proved very handy when he came here in 1940 as a refugee—Mr. Green is French, and unmistakably French.

This needs to be borne in mind, because some critics and newswriters have tended to classify him as something unique: as a Southerner who has preferred France to his native land; as a Gallicized American who for some obscure reason has chosen a foreign tongue as a medium of expression; as a Franco-American of mysteriously cosmopolitan acquaintance. Others have considered him America's generous gift to the cause of ailing French letters.

Yet Julien Green was born, reared, and conditioned in Paris.[1] *Il est Parisien!* He was born there, Rue Rhumkorff, on the sixth of September, 1900, and was christened Julian Hartridge Green, the Christian name and the middle name coming from the mother's side of the house. He remained Julian Green until the late 20's when, for advertising reasons, his first Parisian publisher decided upon the change to Julien.

As noted, his parents were American, and both were members of distinguished Southern families. His father, Edward Moon Green, was the son of Charles Green, a native of Liverpool who came to Savannah in 1826 to found an important cotton exporting house. Shortly before the outbreak of the Civil War, Charles Green built

[1] Mr. Julien Green, Miss Anne Green, and Mr. Walter C. Hartridge, Jr., have kindly furnished information used in the preparation of this article.

in Savannah the great Tudor house which still stands on Bull Street, and which today is pointed out to tourists as Sherman's headquarters during the occupation. The mansion was some ten years in the building, not being actually completed until April 12, 1861, a date made famous in American history by the opening bombardment of Fort Sumter. It is now the house of Mrs. P. W. Meldrim, and is referred to as the "Meldrim House," or the "Old Green House."

Charles Green, the paternal grandfather, married Lucy Hunton, descendant of colonial Maryland and Virginia families. Throughout the Civil War he retained residence in Savannah, though business forced him to spend considerable time in Virginia. Fortunately he retained his British citizenship; for when the Federal forces invaded Virginia, he was arrested on the charge of aiding the Confederate cause, and was imprisoned at Fort Warren. After several months, the British consulate obtained his release. Soon after Appomattox, Charles Green decided to move his family from Georgia to permanent residence in Virginia. It was in that state, at Greenwich, Prince William County, that his son Edward Moon Green was born.

Edward Moon Green, the father of Julien Green, was reared a Virginian. He attended Hampden-Sydney College for some time, then went to Europe to complete his education. Upon his return to America he married Mary Adelaide Hartridge, daughter of Julian Hartridge, a prominent Savannah lawyer who had represented Georgia in the Confederate States Congress, and who later served in the Congress of the United States. Mary Hartridge's mother was the former Mary Marshall Charleton, daughter of Robert Milledge Charleton, another Savannahan of eminence, lawyer, jurist, and United States Senator.

Edward Green was a cotton factor in Savannah until the dissolution of the firm of Charles Green and Company, about 1895. In that year he went with his family to Le Havre de Grace, in Normandy, where he served as European agent for the Southern Cotton Oil Company. In 1898 he moved his headquarters to Paris, where he continued in the same position until some two or three years before his death in 1927.

CARNEGIE LIBRARY OF

Of the eight Green children, Eleanor, Anne, and Julien have achieved prominence either as writers or because of association with literary society. Eleanor, for example, was affianced to Arnold Bennett. The engagement broken, at her instance, she later married Kenneth Joll, an Englishman, and took up residence in Trieste. Anne, who seems to have been closer to her brother than any of the other children, like him displayed an early interest in literature. After the death of their parents, she became Julien's closest companion, and moved with him in the same artistic and literary groups. Much against the advice of her brother, she decided to become a writer, and in 1930 published *The Selbys*. Written in English, and brought out in America, the book was both a light satire upon American society in Paris and a biographical reminiscence of the family Green—in particular of the mother, Mary Hartridge Green. The following year *Reader, I Married Him* was a best seller, and definitely established her as a popular novelist. Unlike Julien, she has always written in English by preference, and her witty, lightly ironical stories are probably better known to the American public than are the gloomier books of her brother.

The childhood of Julien Green seems to have been average, even commonplace. Certainly, as outlined in his *Memories of Happy Days,* in *Personal Record,* and in the two French volumes of the *Journal, I-II,* there is nothing to justify the statements of some biographical articles (*e.g., Living Authors*) to the effect that he was lonely, uprooted, and unduly sensitive. On the contrary, he was the youngest child in a family of eight, an only boy at home, and he was surrounded by five sisters, an amiable mother, a tolerant father. The group was congenial, albeit noisy. Financially speaking, it seems to have been unusually well off. Furthermore, during the early years of Julien's memory, there were no family tragedies or upheavals to disturb the even tenor of life. Under such circumstances it would have required a genius indeed to be unhappy!

His school life was relatively uneventful. He attended the various stages of *école* like all other French moppets, and like them wore the inevitable black alpaca frock, and followed much the same routines. There was no teacher-confidant to inspire him with visions of greatness or urge him to abasement. There were none who chal-

lenged his admiration for any length of time, none whom he revered, none whom he detested. The nearest thing to a school chum that young Green had was one Jean Simonin, a rather typical little French boy with perhaps more than an average "I.Q.," who was driven relentlessly by an ambitious mother to memorize speeches, practice *devoirs,* and work always to achieve the intangible rewards of the "laurel wreath." Jean was a pinched, harassed little fellow, and he exerted no directional influence upon Julien's life, not even to the point of causing him to be interested in study! Finally, there was no clique, no libidinous association of youngsters such as forms the core of Andre Gide's *Counterfeiters,* a novel of French school life; nor was there in these early years any great historical event, such as the Franco-Prussian War. There was not even a street revolution!

Vacations, too, were rather calm. They were exciting, or different, only in the sense that the children were transported from one scene of activity to another. There was no particular modification in their way of life. And young Julien did not roam through the woodland communing with Nature; he did not frequent any hidden grottoes; nor did he mix with the peasantry *a la* Maupassant. In fact, there is no record of a single great emotional experience during these summer periods, nor is there any record of precocious speculations which might have predicted original inventive power.

The First World War broke in 1914 upon an undisturbed Green household. The father, incurably optimistic, had first predicted the impossibility of war, then, with its coming, predicted its early termination. Mrs. Green and the family trusted implicitly in his judgment. Hence to young Julien, then studying at the Lycee Janson-le-Sailly, the struggle was remote, though somewhat exciting. Being fourteen he could not fully realize the magnitude and horror of the whole thing; and, as he himself has said, "it takes a great deal to quell the joy of living in a child's heart."

If the advent of war did not furnish the first great shock to the adolescent boy, the death of his mother on December 27, 1914, straightway marked the transition from childhood. The record in *Memories of Happy Days* is both simple and symbolic:

> The war had been a great shock to my mother. Two days after Christmas of that year, she died suddenly. On the eve of her death, which nothing in the world could allow us to foretell, my sister Retta was sitting on the sofa in the living room. As she looked out of the window, she saw some men on ladders, hanging the garden gate with draperies, according to European custom when a funeral is to take place. So dreadfully vivid was this scene to her that she called Anne to witness it, but the latter could see nothing but the empty garden in the bleak afternoon. [*Memories,* p. 131]

It was Retta who took the mother's place in the household, and who tried valiantly to continue the routines. But now the war began to take on added significance. Wounded were quartered on the second floor at Janson-le-Sailly, and the students below could hear their groans. At recess they could see the walking cases being exercised in the yards. Rationing began; there were fuel shortages; casualty lists grew; civilian morale sagged; governmental bickering intensified. And so arrived finally the sinister days of the black year 1916, and the name Verdun, and the crisis of defeatism. By this time Julien had become a young man, and already he was looking forward soberly to graduation and release from school.

Early in July 1917 the *baccalauréat* examinations were taken and passed. One week later Julien enlisted as an ambulance driver with the American Field Service. Duly signed up, he was sent to a training camp near Moulins-sur-Meaux, where he learned to drive a Ford, and where for the first time he came in contact with a group of typical American boys. Their joking, fun, horseplay, and their unserious attitude towards life was as amazing to Green as it was to all other Frenchmen. From Moulins-sur-Meaux the unit was sent to Triaucourt, on the outskirts of the Argonne, thence to Clermont-en-Argonne in the Verdun sector. It was in this area that Julien, along with the others of his group, was given his baptism of fire. It was then October 1917.

By the end of that month, the American Field Service had been incorporated with the American Army, and Green had been given an honorable discharge. By the rules, he was too young by one year. He then joined the Morgan-Harjes Service (*i.e.,* Red Cross), which was still a private organization and thus was able to dis-

regard the fact that he was not eighteen. His group, consisting of about forty Americans, mostly collegians, was dispatched to Italy, where it took up quarters at Roncade, a small medieval village in the vicinity of Venice. The zone was inactive and likely to remain so for the duration. Thus Green had every opportunity to read, wander about, and to get acquainted with the art treasures of cities such as Venice, Treviso, and Padua. In February 1918, however, he was awakened somewhat to the realities of other parts of the world by receiving news that his sister Retta had died. Both she and Anne had gone into hospital work in France, and both had been awarded the seldom given Médaille des Epidémies. Retta, twenty-two, frail, a bit of a mystic, had died of overwork.

Enlistments were for six months. Therefore when Green received his discharge in May 1918, he returned to Paris. After about a month he decided to join the French army, because at that time the war seemed likely to continue a year or so longer. He was sent to the artillery school at Fontainbleau, where he found about fifty American collegians who, like himself, had been formerly with the Field Service or the Red Cross. Like Green, they had been inducted by the simple expedient of joining the Foreign Legion, remaining in that organization for about an hour, or less, then transferring to the regular army. On November 11, the group was three-fourths of the way through its course. To the surprise of Green and the collegians, the Armistice did not release them, nor did it greatly alter the content of training. A few weeks later Green was commissioned second lieutenant, and joined his regiment near Haguneau, in the Strasbourg area. Almost immediately thereafter the unit moved into the Saar, where Green remained with the Army of Occupation until the following spring, 1919, when the general demobilization allowed him to return home, that is, to Paris.

For several months he accomplished nothing towards deciding what to do for a living. Somewhat vaguely he thought that he wanted to be a painter, or, as second-best, a writer. In no case would he consider going into business. It was at this time of hesitancy that his father received a letter from Walter Hartridge, then solicitor-general of Savannah, offering to send Julien to an American university. Julien's father accepted at once, and informed his son thereof.

> I received this piece of news in silence. To leave France, and above all to leave Paris, was, I considered, the end of everything as far as I was concerned; but it meant very little what my feelings on the subject might be, and the next day passage was secured for me on the *Rochambeau,* sailing September 10th from Marseille. [*Memories,* p. 198]

In due time the *Rochambeau* arrived in New York, where Julien was met by his uncle and aunt, who had come from Savannah for that purpose. Two days later he was enrolled at the University of Virginia. Registration completed and lodgings found, Uncle Walter shook hands with his nephew and departed, leaving behind him an already homesick and discouraged young man.

Since he was classified as a "special student," Green could elect rather freely among the curricular offerings. He took English, German, Greek, Latin, a modicum of history, and some Spanish. He avoided mathematics, and, in large part, he managed to evade both the social sciences and the natural sciences. He worked hard, partly because of a natural love for books, partly because he felt that it was one way of passing the time which now hung so heavy upon him.

James Southall Wilson, under whom Green took Chaucer and some Shakespeare, reminiscing in the *University of Virginia Magazine,* May-June 1934, recalls him as follows:

> He sat near the front, to my left, in room one hundred, Cabell Hall. He listened closely, and his dark, sympathetic features showed quick response to the subject material of discussion. Sometimes he was one of those who remained briefly after class, but his manner was diffident. The class was not one that gave much opportunity for the judging of literary ability, but I learned of his interests and ambitions from his friends whom I knew during his last session. In appearance he was very dark: that and his amazingly speaking eyes were what I remember about his looks.

Professor Wilson did not get to know Green well, nor did more than a handful of the students. In fact, the first year at Charlottesville was one of almost utter loneliness. Timidity, nostalgia, and the feeling that he was "foreign" combined to make him something of a recluse. His grades, however, show that he was a superior student in the humanities. They range from 80 to 90, some of the

highest being in English literature, of which Green had now become a voracious reader.

The second year at Virginia seems to have differed little from the first, though by this time there were some friends, and Green seems to have begun to display a great interest in mystic and religious subjects. So much so, in fact, that some of his college mates predicted that he would become a priest. His grades for the second year closely approximated those of the first. His avid reading continued unabated and led into many a strange field. He had stopped studying, except around examination time, in order to follow his own interests. Religious and sociological writings began to share place with the more purely creative types of literature to which he had devoted himself previously. It was this year, for example, that he records having read with astonished eyes the work of Havelock Ellis.

Near the end of the second year Green applied for a teaching post at the University. He received an appointment in Romance Languages, Assistant Professor of French. Thus the third year began with faculty standing, a record of successful work, and a goodly group of friends. His summer vacations had been spent with relatives in Virginia and in Georgia; hence he had lost most of the feeling of "foreigner" which had plagued him the first year. But he had not lost the nostalgic longing for Paris, and, by the spring of 1922 he had decided to return to France. He reached Paris in mid-July, crossing from New York to Le Havre on the same vessel which had brought him to America, the *Rochambeau*.

The perplexity of "what to do," what profession to take, how to make a living—none of these had been resolved in Julien Green's mind. He still felt the urge to write, but he could not believe that his efforts would prove remunerative. The idea of going into business, of *earning* money, was still abhorrent to him. So when near the end of summer his father asked if he had any idea as to what he wanted to do, now that he was twenty-two, Green agitated the question wildly in his mind for a moment, then answered, "I am going to be a painter." He entered the Grand-Chaumière Studios and began taking lessons; but he withdrew after six months, thoroughly convinced that he couldn't make a profession of painting.

In the postwar age, everything seemed to be futuristic, dadaistic, surrealist, and what-not, whereas his own tendencies were classical.

During his time at the Grand-Chaumière, however, Green formed new acquaintances and made new friendships among the most alert spirits of Paris. It was a moment when many new currents and personalities were entering upon the scene and preparing a new literary generation. Thus it was that Green was asked to contribute to one of the numerous, bright, ephemeral journals that flourished just after the war as an outlet for the clamoring voices. For the review just then coming into existence—and which never went beyond the first number—he wrote a thin octavo entitled *A Pamphlet Against French Catholics*. Issued in October 1924 under the pseudonym of Theophile Delaporte, the work gained some minor attention from the oddity of its theme, and, as its author later confessed, "from its frenzied disregard of actuality." Of small printing, the edition was soon exhausted, and, not having been republished, has become a collector's item.

Among the fragments and unfinished bits of stories which by this time had accumulated in his desk, Green had one to which he added a page from time to time, partly as an experiment with character drawing, partly as a test of his own method of making up a story as he went. It had started in the form of recollections drawn from his residence at the University of Virginia, but as it gradually lost the characteristics of autobiography, and as the supernatural began to take possession of the narrative, he abandoned the piecemeal method and wrote large portions of the story at one sitting. Concluded, the story was entitled *The Pilgrim on the Earth*. Now, however, the author hesitated. Did his book really *sound* like a book? Or had he produced something formless which no publisher would consider?

> I was at times painfully conscious that I did not write like the more successful novelists of my day, in that dazzling, elliptic style, enriched with new images. What I had to say, I said in a bare, direct way, and with not the slightest desire to flatter my reader's taste. It seemed all too probable that people wouldn't care for that sort of thing. [*Memories*, p. 265]

In his perplexity, he submitted the work to the judgment of a friend who was at the time one of France's best known authors, Jacques de Lacretelle.

The decision to approach Lacretelle was a trying one for an individual like Julien Green, by nature reticent, and by nature somewhat deprecatory of his own efforts. Lacretelle was a member of the French Academy; he was known as a classicist; he was strong in his likes and dislikes, and fastidious in word choice. The *Pilgrim on the Earth* was romantic—perhaps "wildly romantic." Nevertheless, the choice was fortunate. Lacretelle was interested, and he was sincere enough to take the manuscript to his own publisher, Gaston Gallimard. Here too Green was fortunate. Gallimard had a particular interest in discovering new authors, and he accepted manuscripts from newcomers with somewhat less care than he exercised with the older, more established writers. His reasoning, perhaps, was that given quantity he would be bound to strike some literature of worth, even though the percentage were low. In the second place, Gallimard owned the most important literary review in France, *La Nouvelle Revue Française*. Publication in it assured a writer of "standing," and Gallimard usually serialized, at least in part, any volume which he published under his imprint. A few weeks later, Green signed his first literary contract.

That same year, emboldened by success, and encouraged by his friend Robert de Saint-Jean, who was a staff member of the small but popular magazine *La Revue Hébdomadaire,* Green embarked upon the task of writing a novel. From June to October he spent most of his time in Auvergne and in the Pyrenees, hard at work. Early in October he returned to Paris, a full-length novel in his bag. After reading it carefully, Saint-Jean suggested that he submit it to the editor of the *Revue Hébdomadaire*. The author did so with reluctance, because he was uncertain in his own mind as to whether the manuscript was publishable. The verdict, however, was reassuring. Part of the novel was to be serialized by the *Revue,* and the house of Plon-Nourrit was interested in the manuscript as a whole. A few days later, Green signed with Plon for the publication of *Mont-Cinère,* known in English translation as *Avarice House*.

From a professional point of view, 1925 had been the all-

important year. It had spelled success. From the long short story, or novelette, as illustrated by *The Pilgrim on the Earth,* Green had progressed to the novel complete. More important still, he had acquired confidence in himself as writer and confidence in his type of production. And already he was setting in motion other projects. For example, late in 1925 he began a series of sketches which were to appear later as *Suite Anglaise,* essays on Samuel Johnson, Charlotte Brontë, Charles Lamb, and William Blake. He began likewise to plan his second novel, *Adrienne Mesurat.* This work was serialized in 1926, then published in book form early in 1927. It was translated soon thereafter as *The Closed Garden.*

By 1926-27 Green's reputation as a writer was well enough established for René Doumic, editor of the *Revue des Deux Mondes,* and czar of the higher periodicals, to contract for serial rights to the next book sight unseen. Recognition came likewise in the form of awards: the Prix Paul Flat from the French Academy; the Prix Femina-Bookman, announced from London by Hugh Walpole. In America, *The Closed Garden* was a Book-of-the-Month Club choice, a recognition which does not necessarily imply great literary merit, but which does have a financial return estimated at from $20,000 to $30,000, guaranteed. In 1929 a third novel appeared, *Leviathan.* It duly joined the other volumes in translation, all published by Harper's, and became *The Dark Journey.* In 1930 "The Pilgrim on the Earth" ("Le Voyageur sur la terre") was reprinted as the lead story in a volume made up of two novelettes and two short stories. The translated version became *Christine and Other Stories.* In 1931 another novelette came from his pen, *l'Autre sommeil.* This was followed in 1932 by a novel, *The Strange River* (*Epaves*); a fifth novel, *The Dreamer* (*Le Visionnaire*), came in 1934; another, *Midnight* (*Minuit*), in 1936. Three years later he began publication of his *Journal,* of which two volumes only have been issued. The translated version, *Personal Record,* followed closely upon the French printing. He returned to fiction in 1941 with *Then Shall the Dust Return* (*Varouna*), a refugee publication, so to speak, which was brought out by the New York house Editions de la Maison Française. In 1942, at the instance of an American cousin, and in the desire to offer a volume of tribute to the country which had

nurtured him, Green returned to reminiscence and personal record with *Memories of Happy Days,* of which no French version exists.

In the interval between his return to Paris from the University of Virginia and his escape in 1940 from the Nazis, Julien Green had undergone a number of experiences. In the first place, he had risen from the ranks of amateur writers to become one of the most widely accepted of contemporary authors, known both in Europe and in America. He had travelled extensively in Europe, and had made at least two other trips of length to America, one in 1933, the other in 1937. On both these visits he seems to have confined his travelling pretty much to the East and South, following the line from New York to Florida. In the second place, the death of his father and of two sisters had saddened him, and had matured his thought. In the third place, his acquaintanceships had widened and deepened immeasurably. His *Journal* shows that he knew and associated with an extraordinarily large number of the important artistic and literary figures of the time, among them Cocteau, Mauriac, Gide, Malraux, Martin du Gard, Gertrude Stein, Jaloux, Dali, Maritain, and others.

Following the debacle of June 1940, Green fled to Portugal, and there joined the long line of refugees moving westward towards America. He arrived in New York on July 15, and from there went to Baltimore, where he has relatives to whom he is very close. Since arriving and settling down, his work has been varied. In addition to writing, he has been on the staff of Goucher College, where he has conducted courses in contemporary French prose. He was visiting professor at the 1944 summer session of Mills College, in California. Off and on, he has been doing work for the Office of War Information, and, in all probability, for the Free French groups.

It is perhaps futile to speculate upon the future of Julien Green: as to whether he will resume creative writing or continue with memoirs and incidental pieces which demand little inventiveness; as to whether he will try his hand increasingly at English; as to whether he will remain content in America or find his way back to France. He is first of all a man of letters, and it is through his connection with literature that his life has significance to us. Therefore it is

to be hoped that he will return to the field of prose fiction where he has gained esteem. As to his return to the continent, it is plain that his intellectual outlook in its broadest relations is European. And the nurture of his spirit is so decidedly Parisian that one cannot imagine him content as an expatriate when so much is happening to shape the destiny of France.

CARNEGIE LIBRARY OF ATLANTA

A Prayer for Builders

To Francis P. Smith, F.A.I.A.

Lord, Thou hast given Thy sons
  Both hands and brains,
    Faculties closely twined,
    So that we surely find,
As the long cycle runs,
  That which the mind desires the hand attains.

Now what dead hands have wrought
  With cunning art,
    In the dark night of fear,
    At noon, in starlight clear,
Swifter than human thought
  Ruin from earth and sky shatters apart.

Homes where our fathers dwelt
  Moulder in dust.
    Keystone to pavement borne,
    Saints from their niches torn,
Shrines where our fathers knelt
  Fallen to rubble heaps, yet stands our trust.

Then when the storm is past,
  Take we the van;
    War's gaping wounds to heal,
    With timber, stone, and steel
Firm may we build at last
  Structures that shall not shame the master plan.

T. H. E.

A New Day Dawns for the Bible

By DONALD T. ROWLINGSON

Donald T. Rowlingson, A.B. (Allegheny College) '29, S.T.B. (Boston University) '32, Ph.D. (Boston University) '38, is Professor of New Testament in the Candler School of Theology. He came to Emory in 1939 from Allegheny College.

POTENTIALLY we are standing upon the threshold of a period in which we may see a more widespread use and a profounder appreciation of the Bible than has been the case for many years. This new day will not dawn automatically; it must be achieved by serious thought and valiant effort. But it is latent in the combination of several factors which characterize the mind and experience of many modern persons. Among the most important of these factors are four which we shall indicate here.

First, there is our evident need of what the Bible has to offer us. This can be expressed in many ways, but it is clearly seen in relation to the world crisis through which we are passing. An increasing number of serious thinkers are making it apparent that in this crisis it is our very civilization itself which is at stake, not simply the defeat of the enemy in battle, and that the basic issues are moral and spiritual. We shall have an enduring civilization only as we lay the ethical and religious foundations upon the basis of which any civilization can endure, which means that for us as individuals this is "A Time for Greatness," a time to rise to those heights of character supremely manifested in the Bible. Furthermore, this Book has demonstrated in history its capacity, above all other literature, to stimulate and inspire the very qualities which we must have, if we are to meet successfully this rendezvous with destiny. We shall need a great deal more than the Bible, to be sure, but we cannot get along with less.

Second, we are witnessing a growing concern with religion which involves an increasing use of the Bible. This is evidenced in many ways, not the least significant being current reading habits. The outstanding characteristic of the present time in the field of publi-

cation is the persistence of religious and Biblical themes, not only in such directly religious books as Douglas' *The Robe* and Asch's *The Apostle,* but also in more popular items like Maugham's *The Razor's Edge* and Cronin's *The Green Years.* Surveys show as well that the Bible itself is being more widely read than for some time past. We must not overestimate the importance of these facts, since such trends may not represent a very profound or permanent interest, but they should receive attention in any effort to estimate the possible prestige of the Bible in the days ahead.

Third, the Bible is the most available book in the world. It has been customary for some in recent years to disparage the circulation statistics of the Bible Societies as unrepresentative of the actual use of the Bible. As true as this undoubtedly is, it is more important for our purpose to recognize the fact that whenever and wherever people want the Bible it can usually be found. In a truly phenomenal way it is spread over the face of the earth in many languages, with a potential availability which no other book shares.

Finally, and most significant of all, serious study of the Bible has finally produced an adequate method of evaluating its current religious significance without any depreciation of a sound historical approach. This bids fair to answer the questions of many intelligent people who have neglected it, because they have been discouraged by the antiquated and spiritually inadequate presuppositions of much traditional teaching, and it has ramifications in many other directions as well. The following pages are chiefly concerned with this phase of the subject, but it has seemed advisable to present it within the framework created by the other factors listed above, as they combine with this new approach to make this hour one of great opportunity for the Bible.

This approach can be called "new," not that it has been unanticipated or unannounced before, but because it represents the latest development of the science of Biblical criticism, its chief characteristic being the effort to deal with the questions about the religious value of the Bible which the science itself has raised. Having destroyed the authority of the Bible as an infallible source of doctrine and ethics, it left unanswered, except by implication, the question as to wherein the authority lay. The interest of Biblical scholars

themselves in dealing with that problem, explicitly and convincingly, marks a new trend. What is also new is the manner in which the published analyses of Biblical experts bid fair to influence the rank and file of Christian people.

In order to appreciate the significance of this new approach it is necessary to see it in some detail. It assumes the validity of historical Biblical criticism and constructs a religious approach to the Bible which is at one and the same time consistent with that science, yet transcendent of it—transcendent in assuming the necessity of religious sensitivity, in addition to intellectual acuteness, if its lasting spiritual values are to be appropriated.

By taking seriously the historical insights of Biblical criticism the new approach eliminates a series of ideas which in the past, and even today, have seriously beclouded the real nature of the Bible, served as causes of interminable conflict unbecoming intelligent and reverent Christians, and in reality made the Bible appear to be a very arbitrary book, reflecting unfavorably upon both the intelligence and the integrity of God. It assumes that the documents of the Bible represent a variety of ways in which religious persons long ago expressed and interpreted the experiences which they, and others, had at that time. This implies that our first interest in the Bible must be to understand what the original writer intended his readers to think about his message in the light of their environment, the assumption being that his perspective was limited to them and that he was not at all conscious of creating scripture, either for them or for us.

The new approach does not stop here, however, since it recognizes that the Bible is a great deal more than simply a record of the past. It emphasizes the fact that the Bible is above all else a book of religion, that its authors usually had a religious purpose in mind, and would never have written at all if that had not been so. The quality and the depth of the religious experience which they thus set forth vary greatly, rising from primitive to sublime levels, with the peak in the Gospels; but the key note of the whole is religious experience.

Since this is so, the appreciation of the Bible's spiritual values calls for an equipment in addition to that which the historian as

such possesses, that is, a quality of mind and spirit which can appreciate high religious values when they are presented; teachableness combined with an experienced knowledge of religious insight which, like a magnet, draws to itself what is akin to it. It is similar in kind to the ability of the artist to appreciate great painting, or of the musician to recognize sublime music. This is what the late Adolf Deissmann expressed so trenchantly when he said:

> The religious value of the New Testament cannot be forced upon anyone by demonstrations. It can only be perceived by the man who has a sensitiveness for the sublime object. It obtrudes itself upon the religious man.[1]

Without this sensitiveness, however much we may grasp the value of the Bible as a book of the past, we shall miss its vital significance for religion today.

In order to make this method as concretely clear as possible, let us consider an illustration of its exposition as set forth in one of the best current books on the subject, H. H. Rowley's *The Relevance of the Bible*.[2] He takes the story of Abraham's intended sacrifice of Isaac in order to point out the manner in which an historical understanding of the Bible serves as a basis for spiritual understanding. He shows how historical science has helped us to appreciate this incident as an item in the biography of Abraham, and as a tremendously significant advance in the attitude of Israel toward human sacrifice. Not in these ideas, however, do we find permanent spiritual value, since they may be spiritually neutral. The permanent religious value lies rather in perceiving the rich principles expressed, such as the completeness of Abraham's dedication to God's will. The real point here is not so much that Abraham came to believe that God frowned upon the sacrifice of his son, but rather that he loved God enough to offer his son, if that was what God appeared to require. "Though he came to realize that there are sacrifices that God does not ask, he first realized that there are none a man should be unwilling to make. This is a rich principle, which still comes with its

[1] *The New Testament in the Light of Modern Research* (New York, Doubleday Doran, 1929), p. 170.

[2] New York, Macmillan, 1944. Pp. 99-101.

spiritual challenge to us, to be worked out in the terms of our own lives."[3]

A deeper permanent perception in that narrative, because of its wider application, is the idea that "common experience may be the vehicle of a divine message." Proper historical perspective helps us to appreciate this, by taking our eyes off the thought-forms of that day which emphasized the supernatural voice and the miraculous appearance of a ram, and centering them upon the reproducible factors. Thus we are able to read it "as the story of a man who perceived the finger of God in the experiences of his life, whose spirit was teachable, and who, because of his response to what God was saying to him through his experience, was led into a larger truth himself, and led others also into it." Read in that light "it becomes a revelation of the significance of experience,"[4] illustrated as well in a profound manner in Moses' response to the needs of the people of Israel in Egypt, in Hosea's appreciation of God's love as revealed through his domestic tragedy, in Jeremiah's discovery of courage in place of fear through the very necessity of throwing himself upon God in his loneliness. From all these we learn a truth of permanent value, namely, that it is our response to our experiences which makes it possible for God to guide us into fuller truth.

We may wish to question some of the details of Rowley's historical analysis, but these are irrelevant to the subject at hand. His method of approach is what concerns us, as he distinguishes the historical from the religious approach and shows how they work together to reveal the spiritual contributions which the Bible has to make today. Since he so clearly exemplifies what is best in much current thinking, and has expressed it so vividly, we can do no better in summarizing this statement than to quote from him.

> The newer approach to the Bible is . . . marked by the utmost frankness and the fullest scholarship. But it perceives that no merely intellectual understanding of the Bible, however complete, can possess all its treasures. It does not despise such an understanding, for it is essential to a complete understanding. But it must lead to a spiritual understanding of the spirit-

[3] *Ibid.*, p. 101.
[4] *Ibid.*, p. 102.

ual treasures of this Book if it is to become complete. And for that spiritual understanding something more than intellectual alertness is necessary. Spiritual things are spiritually discerned, and the Bible student needs an attitude of spiritual receptivity, an eagerness to find God that he may yield himself to Him, if he is to pass beyond his scientific study into the richer inheritance of this greatest of all books . . . We do the Bible no honour when we bring to it closed minds; still less do we honour it when we come to it with closed hearts.[5]

The possibilities of the use of the Bible in this manner are fascinating to anticipate. Since it rests upon a creative religious experience, and in turn helps to arouse it, it can aid us in the revival of vital religion which the church and the world so much need today. It can serve the interests of apology as well, offering, on the one hand, a positive answer to those who charge Biblical scholars with destroying the religious authority of the Bible, and, on the other hand, showing those who charge the church with negligence in facing the implications of modern science that one can be both scientific and religious at the same time.

In the area of college and seminary teaching the application of an approach which deals with the whole meaning of the Bible can make it significant in a way which is not possible when it is considered solely from the point of view of its origins. The teacher has an unparalleled opportunity to teach his students how it may be of permanent value for religion, as in intramural athletics the effort is made to develop recreational skills which carry over into later years. The need of this type of teaching in the seminary goes without saying, and its bearing upon the practical work of preaching is evident.

This approach also opens the way to a return to expository preaching, after long neglect of that method by the ministry. The confusion about the way in which appeal may be made to the Bible as authority for current situations is dissipated, so that preaching may be based upon the exposition of a passage of Scripture. Furthermore, as the preacher thus drives home from Scripture truths

[5] Pp. 19-20. Other books with a similar emphasis include R. B. Y. Scott, *The Relevance of the Prophets* (New York, Macmillan, 1944), and H. F. Rall, *According to Paul* (New York, Scribner, 1944).

pertinent to the contemporary situation, he can by implication teach his people the new approach itself, so that they may learn to use their Bibles with greater effectiveness.

In regard to the general situation, with our need of moral guidance and dynamic, this approach to the Bible offers it to all of us in such a way that it may become one of the most potent instruments in the cultivation of great character. It holds out the possibility of making its values felt as never before by a generation which has so carelessly neglected one of its indispensable sources of light and vitality.

Viewing together all the factors which confront us in relation to a new day for the Bible, we should be optimistic indeed if we assumed that this new approach will spontaneously come into its own. It cannot be fully effective in our common life until the rank and file of Christian people are taught to think more seriously than at present on matters of history; until many prejudices, deep-rooted and irrational, are tempered; until a creative religious experience takes the place of much of the half-hearted and provincial loyalties which many mistake for vital Christianity. Nevertheless, in a very real sense this is "the fullness of time" for the Bible, as indicated by the combination of factors cited at the beginning of this paper. Meanwhile the hour awaits leaders who recognize the signs of the times and who will incorporate the new approach in their own practice, and in turn teach it to others. The responsibility rests in a peculiar way upon the ministry, because of the direct touch which they have with the people; on the whole the teachers in colleges and seminaries are doing their part. Since this is by no means an academic issue, we cannot contemplate the contingencies without deep concern. Because a new day for the Bible holds such pregnant possibilities for the life and welfare of humanity as a whole, it will be nothing less than a major tragedy if it is allowed to be stillborn.

Leibniz and the Crisis of Seventeenth-Century Europe

By LEROY E. LOEMKER

Leroy E. Loemker, A.B. (Dubuque College) '21, S.T.B. (Boston University) '27, Ph.D. (Boston University) '31, is Professor of Philosophy. Traveling on a Rosenwald Fellowship in 1938-39, Professor Loemker studied the Leibniz manuscripts at Hanover, Germany, and has since been working on a critical interpretation of the philosopher's thought.

ARISTOPHANES may have drawn the first popular laugh at philosophy's expense, but by no means the last, when he suspended Socrates above the stage of an Athenian theater, and made him define his profession as

> cogitation all assimilated
> To the pure atmosphere in which I float.

It must be admitted that there is ground for comedy in philosophy, in the words it uses, and sometimes in the problems it pursues. But there is ground for tragedy, too, in the popular distrust of high thinking that marks our times, for we shall never discover the permanent paths to human welfare as long as we disdain to seek for the principles involved in it. Great thinkers have always struggled with great human problems, and philosophy, or the lack of it, has always defined the limits within which man's best efforts to improve his lot—whether through government, science, or religion —have moved.

This is true of Gottfried Wilhelm Leibniz, the last great universal genius of modern Europe, and a thinker whose endeavors were earnestly devoted to human betterment. Generations of students have groaned over the calculus which he discovered, and have laughed at Voltaire's brilliant satire (or smirked at Pope's poetic homily) on his belief that this is the best of all possible worlds. His theory that the universe consists of an infinite number of monads (which students more conversant with Hollywood than with Greek commonly transmute into nomads), each reflecting the universal harmony and beauty of the world from its own perspec-

tive, has seemed to most people a bit of imaginative fancy, equally remote from reason and from fact. More profound students of logic, science, and religion, are discovering anew important insights which he has recorded. But the real Leibniz, who used his learned, profound, and creative intelligence in a life-long effort to save Europe from its miseries, is neglected.

1946 will be the tercentenary of Leibniz's birth. In 1646 sheer exhaustion was forcing Europe to the end of the Thirty Years' War. The peace which was extemporized out of the wreckage of resources, lives, and culture, professed at least to have settled some things. The medieval structure was doomed and a new order was sanctioned; political absolutism, pluralistic nationalism, state churches, and a balance-of-power diplomacy were to provide the basis of lasting peace. Of course they did not; in Leibniz's lifetime nine important peace treaties ended as many great European wars. Dictatorships flourished, that of Louis XIV particularly altering both the map and the culture of Europe. Petty powers struggled to become great, Hanover, Prussia, and Russia being only three with whose advance Leibniz was closely associated. Such old powers as Spain, Sweden, and Austria were slipping into subordinate places. Like our own, the culture of the century was paradoxical; as Leibniz once put it, "we pride ourselves in having demonstrations about clocks and machines, but offer only declamations about the well-being of nations." The advancement of learning, from which Bacon's prophecies had led men to expect so much, was kept barren of human fruits by the confusion and growing corruption of political and moral ideals.

Leibniz's whole life and work may be considered as an effort to undergird European unity and peace. As a child he had seen the devastation of war in the little provincial university center, Leipzig. A brilliant academic record in law opened a university career to him, but he turned rather to the profession of courtier as a more influential field in which to use his powers.[1] Serving first at Frankfurt

[1] Bertrand Russell has charged that this courtier's life colored Leibniz's work with insincerity, and introduced a gulf between what he really believed but feared to publish, and what he wanted his courtly friends (thirty-five royal names were on his list of correspondents) to think he believed. The evidence to disprove this view is overwhelming; Russell arrived at it only by viewing Leibniz's work too narrowly from the perspective of logic alone.

and Mainz, under the Prince Bishop John Philip of Schönborn, a central figure in maintaining the European balance of power after 1648, and then, after four years of study in Paris, for the rest of his life as counsellor, librarian, historian, unofficial tutor, and jurist at the court of Hanover, he played an active role in most of the diplomatic processes of the century. Particularly conspicuous was his part in such projects as the plan, in 1672, for a French conquest of Egypt, designed to divert Louis' desire for war away from Holland and the Rhine; a political campaign supporting the election of the Elector of Neuburg to the throne of Poland; the elevation of the House of Hanover to an imperial electorate and later to the throne of England; and the forwarding of the Austrian claims to the Spanish succession. He was a political realist, and his quick discernment of geographic, economic, and human factors in the detailed strategy of balance-of-power politics caused his services as counsellor to be sought by Prussia, Austria, and Russia; with Peter the Great he had three conferences and an extended correspondence concerning the modernization of Russia.

But Leibniz's convictions about the causes of Europe's ills demanded more than the merely palliative diplomacy of the century; they aimed rather at deep-rooted reforms upon which to build a permanent cultural unity. This unity was the goal of four sweeping projects, none of which he ever abandoned, and any one of which would have absorbed the life and energies of a less versatile man.

1. The first of these was the reform of European law. As a youth he was given the task of simplifying and recodifying the *Corpus Romanum,* which in various forms modified by local traditions was the foundation of most European law. Such an undertaking at once involved him in the question of the logical foundations of law, both national and international. For the seventeenth century the answer was inevitably a metaphysical one.

Oliver Wendell Holmes once stated his own problem with the law in similar terms. He was summarizing eighteen years of service on the Massachusetts Supreme Court:

> A thousand cases, when one would have liked to study to the bottom and to say his say on every question which the law has ever presented, and then to go on and invent new problems

which should be the test of doctrine, and then to generalize it all and write it in continuous, logical, philosophical exposition, setting forth the whole corpus with its roots in history and its justifications of expedience real or supposed.

In two early dissertations Leibniz had already tried "to say his say" on the doubtful cases of the law, insisting that even uncertain cases could be reduced to probability and settled *ex mero jure.* Like Holmes he recognized the importance of the historical approach, but unlike nineteenth-century jurists he held the logical, metaphysical interpretation to supersede it and to provide the ultimate moral ought for law.[2] This he found in a Platonic version of the Roman maxim *neminem laedere, suum cuique tribuere, honeste vivere,* establishing three levels on which the universal source of harmony, functioning under different social and human restrictions, supplies the imperatives of strict (or retributive) law, equity, and piety or honor. Leibniz's philosophy thus begins as the universal basis for legal reform.

2. But though Leibniz never gave up the dream of a simple and unified law, he was soon involved in other plans which seemed to promise greater fruits. More prolonged, though no more successful, were his efforts to further the second basis of European peace, the reunion of the churches.[3] Leibniz was well aware that the wars of the century were religious (as ours are "ideological") chiefly as a cloak for more earthly designs; in 1683, for instance, he wrote a skilful satire entitled *Mars Christianissimus*—the most Christian war-god—attacking the pious pretensions of Louis XIV. But recognizing that the principle of state religions intensified European conflict, he made vigorous efforts to bring first Roman Catholics and

[2] In a letter to John Philip on March 27, 1669, Leibniz claims to have "prepared, among other things, a table, comparable to a map in size, which uses a unique arrangement and method to present the entire *private common law* of the Empire today, with all of its fundamental rules and propositions, and reduces them to *first principles* so that any one who understands the table or has it lying before him can decide any fact or case of private law and at once put his finger on the basis for the decision in the table itself." (Italics Leibniz's.) Such a table would indeed be a boon to the layman in the law; unfortunately it has not been found, and Leibniz may have been taking the will for the deed.

[3] In the *Observations sur le projet d'une paix perpetuelle* and the *Tractatus de jure suprematus* Leibniz analyzes the historical failures of church and governments of Europe in establishing peace, and proposes a republic of Christian peoples united under a Christian church and an international senate or council.

Protestants, and later, Lutheran and Reformed Protestantism to agreement on church polity and doctrine, efforts which involved scores of theological treatises and hundreds of letters to such leaders as Boussuet, Arnauld, Pellisson, Madame de Brinon, and the Abbess of Maubuisson.[4] His interest in religion extended beyond Europe, for the morality of China, about whose culture the Jesuit missionaries there kept him informed, contrasted so favorably with Europe's that he once suggested that "considering the rapidly growing decline of manners in Europe it is almost necessary for the Chinese to send missionaries to teach us the purpose and practice of natural theology as we send missionaries to instruct them in revealed theology." Of course the effort to establish a pure and unified Christianity also failed, for Leibniz attempted to do in three decades what three centuries have not accomplished.

3. If religion and law are to provide the motives of unity, the advancement of science and technology are to provide the means. It is here that Leibniz's convictions burn most intensely and bring his efforts to a white heat. Whoever reads his letters must feel the ardor with which he drove forward his own scientific investigations; his encouragement of the work of others covers the entire field of the century's studies and experiments. Not only did he discover the calculus independently of Newton, and invent the symbolism which is still used; he was the first to use the functional concept in mathematics, he founded analysis situs, anticipated projective geometry, used determinants, and wrote fundamental theorems on combinations and probability. The principles of continuity and the conservation of force he used as effective tools, along with the concept of *vis viva,* in physical analysis, and Huyghens credited him with independent formulation of the wave theory of sound. After Guericke sent him his newly invented sulphur ball, Leibniz reported generating an electric spark with it; he may have been the first man to report such a man-made spark. His calculating machine capable of multiplying numbers of twelve digits is still to be seen in a Hanover museum; that it still works is less significant than the fact that

[4] At Hanover alone are preserved over 15,000 letters, a part of the correspondence which Leibniz carried on with more than 1000 people—princes, statesmen, scientists, humanists, artisans—in the interest of advancing human knowledge and well-being.

Leibniz invented for it the principle of construction still used in modern computing machines.

Leibniz's letters are a rich mine of information about the arts and crafts of the century. No new mechanical principle was too trivial for his attention, and few of the great achievements of the day can be named in which he did not have a hand—the manufacture of phosphorus (as a possible weapon of war), the discovery of European porcelain. He called upon Leeuwenhoek and looked through his microscopes, and later proposed to him the founding of a school for training students in microscopic research. He corresponded with Papin about his steam engines, suggesting a self-regulating mechanism for speed control and the re-use of the expended steam. He himself devised machinery for the uniform distribution of power in pumps (in undertaking to rid the silver mines in the Harz of surface water), for regulating springs and pendulums in clocks, for improving navigation, coaches, coinage—and the theory of money on which it rested. Appointed historian of the House of Hanover, he collected and published two large volumes of diplomatic and political acts from the Middle Ages, and though his own history remained unfinished and unpublished, Gibbon used it as a main source for the first parts of his own brief history of the family. Meanwhile, having become interested in fossils during his work on the silver mines, Leibniz wrote as a preface to his history the *Protogaea,* one of the first histories of the earth, for he believed that the earth must first be understood if we are to understand the people who thrive upon it. He was one of the founders of the science of linguistics, and succeeded to a degree in tracing the great migrations of peoples from the local names which they deposited all over Europe.

But more important that his gadgeteering, and even than his scientific achievements, were his efforts to build and strengthen organizations for promoting scientific and scholarly activity, so that future centuries might be even more productive than his own. A member of the French and British Societies, he founded the Prussian Academy on somewhat different principles, and drew up plans for societies in Vienna, Dresden, and Petersburg, which only the continuation of political conflicts kept from being founded. For

the publication of scholarly findings he planned the Latin journal of Leipzig, the *Acta Eruditorum,* as well as a German monthly book review. His own contributions to both of these were abundant, though he also sent many articles to the French and Dutch critical journals of the day. To the first proceedings of the Prussian Academy he contributed twelve signed articles and many items from his letters, on such diverse subjects as the mathematical theory of games, the art of mirror making, resistance in machines, and the symbolism of the calculus.

In Leibniz's own mind, however, the crown of his efforts in the advancement of science was to be more general still—the perfection of a universal language, a general logical tool for scientific investigation, and a universal encyclopedia; among his papers at Hanover are many sheets of definitions for the latter, and many preliminary studies for the new methodology. Whenever he had leisure he returned to these most universal projects, for he found in them the assurance of a unified program for science itself.

The impulsion of this scientific work was the improvement of man's life within the century which promised so much. In all his efforts Leibniz was a true internationalist:

> Provided that something of consequence is achieved [he wrote to Des Billettes in discussing the projects of the French Academy at the end of the War of the Palatine Succession] I am indifferent whether it is done in Germany or in France, for I seek the good of mankind. I am neither a *phil-Hellene* nor a *philo-Roman,* but a *phil-anthropos.*

The big problem was to increase the understanding of man and his capacities:

> Now that we are conquerors of the earth, there remains an enemy among us; all things are clear to man except man himself . . . We are ignorant of the medicine of bodies and of minds . . . So it is not surprising that until now no science has been established of the pleasant, the useful, or the just. To what end bring so many matters together through so much study, if we are to postpone for another century the construction of our happiness? Why not strike a blow with combined forces against the persistence of nature in concealing herself?

4. Leibniz thus saw the basic problem of the century as a moral one—the inability of men of good will (his century called them men of honor) to cooperate on truly humane projects. He was no democrat, and it may have come hard for him, after the Hanoverian succession had been established, to subscribe to such Whig principles as the right of revolution. For he was a friend of princes and of the intellectual aristocracy, and he looked for leadership in advancing man's well-being to "those great men in whom alone there is hope of improvement in this greatest of centuries." The development of such men involved a redefinition of the honorable man (the *homme honnête*) in moral rather than political terms, and particularly a combination of *honnêtete* with that other personal ideal of the century, *curiosité*. The result was a new and more universal ideal of the courtier: the man who finds his true freedom and worth, not in the service of the laws of a human monarch alone, but of the supreme monarch—the laws of nature and of grace.[5] Leibniz's writings abound in allusions to such a man; a striking instance is a reference to Newton in a letter to Thomas Burnet:

> Mr. Hakemann [he writes in 1699] tells me he has had the honor of speaking with Mr. Newton, who has shown him his work on colors, but says he does not wish to publish it so soon. I beg you, therefore, if you are both in London, to undertake an embassy to him on my behalf and for the public good. You know my principles, Sir, which are to prefer the public good to all other considerations, even to glory and gold. I have no doubt that a person of the force of Mr. Newton shares this opinion. The more solid a man is, the more he has this disposition, which is the great principle of the man of honor [*l'honnête homme*], and of justice and true piety as well, for to contribute to the public good and to the glory of God is the same thing.

It is this moral function which Leibniz's philosophy was to serve, for its chief purpose was to show the place of the individual in a

[5] Similarly Leibniz tried to show, while still a young man, that Hobbes was correct in identifying right with the might of the powerful, but that he should have universalized the principle into a moral one, since God is of all beings the most powerful, not the monarch of any temporal kingdom.

universe of law and order.[6] The result was a metaphysics which was to do justice to the great European intellectual tradition and to new problems raised by science as well, to human discovery as well as to sound religion, to man's freedom as well as to the growing social universalism which Europe needed, a metaphysics which grounded true individual growth in the dynamic force of mathematical harmony itself, so that every human being, and indeed, every physical and biological entity, embodies the orderly meaning of the world in a unique way which may be called the law of its individuality.

Of course Leibniz failed. In his old age, abandoned in Hanover when the court moved to London, goading himself to complete his history by twisting a screw-clamp on his leg as counter-irritant to the gout, he predicted an early revolution for Europe, a moral collapse in which the *libertine* would supersede the *homme honnête,* and individual caprice transcend universal order. It would be interesting but unfruitful to argue which of his roles, as lawyer, theologian, scientist, or philosopher, offered the greatest hope of surviving the problems of his own age. In the chaos of our own century men are reaffirming the need of the same reforms which he sought: religious unity, legal reform, the unity of science, a universal language and a universal encyclopedia, and above all, a morality based on social order and mutuality. His philosophy survived its purposes and is now in revival; modern logic, physical energism, the resolution of mechanism and purpose, psychological theories of apperception and the unconscious, and new suggestions as to the methodology of science trace their sources to it. But we are still quarreling about the basic problem which he sought to answer: whether the individual attains his freedom by obeying universal order or by creating his own order.

To know the truth that the truth may make us free has always been essential to our tradition. But both truth and freedom come hard, and it is easy to slip into heresies of over-simplification; Leibniz's century into defining freedom as whatever truth does,

[6] "It is obvious that the happiness of mankind consists of two things: to be able to do what they wish as far as possible, and to know what they ought to wish in any situation." *Elements of Right and Equity.*

ours into defining truth as whatever makes you free. Soon perhaps our age will have had enough of reducing truth to historical expediency,[7] and philosophy will aid sound statesmanship and sound faith to find the sources of true progress and freedom in universal principles and universal values.[8]

[7] "History," said Bolingbroke, who studied Leibniz's *Theodicy*, "is philosophy teaching by example."

[8] It is worthy of note that no complete edition of the works of this European genius has yet appeared. A persistent political fate seems to prevent this as well as the attainment of his humanitarian dreams. Three great editions have been begun, but war or political interference has brought each short: the Prussian seizure of Hanover in 1866 the first, the First World War the second, the Nazi upheaval and the Second World War the third. The present fate of the Hanover manuscripts is still uncertain.

Pattern for Love

By ANDERSON M. SCRUGGS

Anderson M. Scruggs, D.D.S. '25, is Professor of Histology in the School of Dentistry. Of his large body of lyric verse his latest collection, RITUAL FOR MYSELF, *was published by Macmillan in 1941.*

Let him strengthen his love with the love of the earth, who would be
Assured of its constancy.

Let the love of the earth, the sensuous earth, have a part
In the love of the heart.

The love that is fused with the beauty of earth and sky
Will never grow dull, or die;

What beach was ever repelled with the overstressing
Of the tide's caressing?

What cloud was ever too cloyed with color to capture
The sun's last rapture?

Oh love, let us hold in our hearts forevermore
The lure of the cloud for the light, the sea for the shore;

Let it never be said of our love that it withered away
Imperceptibly, day by day.

Let us love as the earth; let us capture the beautiful lust
Of the wind for the wave, of the sun for the procreant dust.

EDITORIAL

In composing an announcement of the forthcoming publication of THE EMORY UNIVERSITY QUARTERLY the Editor wrote the following sentences:

> The function of a university is not only to teach accepted truth in all the fields of human interest with the methods by which truth is ascertained and tested, but to make significant contributions to the sum of human knowledge by the body of scholars which it brings together.
>
> Emory University since its founding has faithfully sought to perform its function both on the lower and on the higher level of its obligation.

Now what the Editor meant to say was that while a university plays an honorable role in merely transmitting accepted knowledge and the techniques of research, its highest service is achieved in making additions to the body of knowledge. This is at least a defensible judgment, which might have passed without challenge by readers.

Nevertheless, the second sentence above was questioned by the President of Emory University, who said in his quiet way, "I'm not sure that I know which is the lower and which the higher level." This made the Editor think, and when he had thought awhile he altered the sentence.

It had not occurred to the Editor how fundamentally the relative values of its twin functions have been affected by the fact that in the United States the university from the beginning has been the servant of a democratic society. Together with the church it was the custodian of a transplanted tradition of learning. The university's first function in these parts of the world was that of guardianship and transmission, and the extension of knowledge was a task only recently added to what has continued to be regarded as its prime duty.

The addition of large research programs has indeed been undertaken so recently that many of us can remember the dislocation caused and the criticism aroused by the apparent relegation of classroom teaching to a lower concern of some of our great Ameri-

can institutions of higher learning. Students and parents complained bitterly that the undergraduate student's elementary needs had ceased to appeal to department heads and administrators. At the same time professors with deeply-felt vocations for classroom teaching felt that in promotions and in other ways they were passed over in favor of the so-called "productive" scholars, who made no secret of the fact that they begrudged time and energy taken from research and writing by the chore of classroom instruction.

Although the situation has been generally improved in the last twenty years, it is possible that postwar conditions may again place primary emphasis on research in certain institutions whose staffs have been withdrawn from "pure" investigation for the duration of the war. It is likely that the controversy will then be renewed over the comparative values of teaching professors and research professors, of teaching universities and research universities.

But Emory University will not be involved in that controversy. The founding of THE EMORY UNIVERSITY QUARTERLY is one indication of many that this institution intends to vindicate its title of university by encouraging research by the members of its faculties, and by diffusing the results of experiment and thought among its alumni and friends. It is to be understood, however, that this does not mean that there has been a reinterpretation of Emory's function; Emory will seek only to perform more fully and more efficiently what it has always recognized as its obligation to the community which it seeks to serve. Classroom teaching will not be slighted, nor will it decline. On the contrary, it is confidently hoped that classroom teaching at Emory will take on a new authority and immediacy. The Emory professor knows no higher praise than that which Chaucer gave to the Oxford scholar who rode on pilgrimage to Canterbury in an English spring six centuries past:

And gladly wolde he lerne, and gladly teche.

T. H. E.

The First Five Emory *Sources & Reprints**

By CHARLES RICHARD SANDERS

Charles Richard Sanders, B.Ph. '26, M.A. '27, Ph.D. (Chicago) '34, is Associate Professor of English, Duke University. He is the author of COLERIDGE AND THE BROAD CHURCH MOVEMENT (*Duke University Press, 1942*).

In 1943 Emory University began the publication in unpretentious but attractive format of rare or unique documents which had been acquired by the library. A capable editorial committee had been set up composed of Thomas H. English, Editor in Chief; Richard B. Harwell (later succeeded by Raymond B. Nixon), Assistant Editor; Robert F. Whitaker, Business Manager; Margaret Jemison, University Librarian; and Osborne R. Quayle, Chairman, University Research Committee. The first number contains a "Preface to the Series," a concise statement of the purpose and plan behind the publications:

> The period of accumulation has perhaps not more than well begun, but in its role of trustee over certain important literary and historical documents, Emory University has felt that it should emulate the generosity of other instituions which have hastened the publication of their bibliothecal treasures. Hence the foundation of this series of Sources & Reprints, under the auspices of the University Committee on Research, supported by a grant of the University for the promotion of faculty research.
>
> It is proposed, if the first titles be well received, that three brochures in the series shall be issued during each academic year. The greatest care will be taken to insure absolutely reliable texts, but editorial apparatus will be reduced to the minimum. A brief foreword and indispensably necessary footnotes will be furnished each document by the member of the Emory University faculty to whom its presentation is intrusted. Every effort will be made to secure as great a variety of subject-matter as possible within the limitations of the Emory Library collections. Since these collections are predominantly regional in character, it may be anticipated that as a whole the Emory Sources & Reprints will be a contribution to Southern cultural history. Nor is it believed that this will be considered in itself a weakness. Naturally, the contributions to the series will vary in significance, but it is believed that among them will be found a number that will close gaps existing at present in our knowledge of conditions and personalities of the past, and will serve to make possible the completer view of our American heritage for which this university and this library have been founded.

*Series I, 1943. 1. *Letters of General J. E. B. Stuart to His Wife, 1861,* ed. Bingham Duncan. 2. *The Diary of a Voyage to China, 1859-1860,* by Young J. Allen, ed. Arva Colbert Floyd. 3. *The Autobiography of "The Countryman" (Joseph Addison Turner), 1866,* ed. Thomas H. English. Series II, 1944. 1. *A Diary-Letter Written from the Methodist General Conference of 1844 by the Rev. W. J. Parks,* ed. Franklin Nutting Parker. 2. Thomas Holcroft's *A Plain and Succinct Narrative of the Gordon Riots, London, 1780,* ed. Garland Garvey Smith. The *Sources & Reprints* are published by the Emory University Library. Annual subscriptions, three numbers, one dollar; single issues, fifty cents each.

The Committee is to be strongly commended for concerning itself primarily with local history and culture. A university avails itself of new and lasting sources of vigor when it begins to sink its tap roots deeply, in the realization that scholarship, like charity, should begin at home. In regional records the scholar and writer find ready at hand the local habitations and names for which it is their function to discover and indicate the associations—the universals. Thus, in the course of time, local records become transmuted, almost magically, into literature and history.

The five documents already published, even though one has an English source, all illustrate the principle. Ably edited and adequately contained as each is in its complementary, illuminating editorial context, one finds in each an opportunity to look with new insight into some of the moments of the past. In J. E. B. Stuart's vivid letters to his wife, written less than three years before his death, we are allowed to listen as this Virginia Hotspur talks to his wife about the ever-growing beard of which he is so proud, about the criticism to which she had become subjected because her father had chosen to remain in the Union army, about Stuart's desire that his baby boy, who had been given the name of this grandfather, should have his name changed, and about the important battles that were to be. Suddenly as we read, we become conscious that we are actually on the inside of history, looking outward.

We have a similar experience as we read the other four, whether we are with Young J. Allen and his wife and baby on the long, long trip to China in 1859-1860; or with Joseph Addison Turner (under whom Joel Chandler Harris served his apprenticeship) as he tells us through the columns of a country newspaper of his heroic and almost futile efforts to find fulfillment as a man-of-letters in an indifferent and frequently hostile Georgia between 1826 and 1868; or with the Rev. W. J. Parks at the Methodist General Conference in New York in 1844, as he jots down notes of the events leading to the separation between the Northern and Southern branches of the church which took place at this conference; or with Charles Dickens as he annotates a copy of Holcroft's *Narrative of the Gordon Riots, London, 1780* (the copy, now in the Emory Library, from which this reprint was made) preparatory to using it as one of his sources in *Barnaby Rudge*.

The vital, creative scholarship which has found fruition in these publications is one of the chief manifestations of life in a university, and may be taken as a sure indication of the progress which Emory is making in the direction of becoming a great university center.

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AUGUSTUS BALDWIN LONGSTREET [1790-1870]